PREVENTING MOTHER TO CHILD TRANSMISSION: FOLLOW UP FOR BABIES AND INFANT FEEDING FOR HIV POSITIVE MOTHERS IN KHOMAS REGION, NAMIBIA

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DECLARATION

By submitting this assignment electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the owner thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety, or in part, submitted it for obtaining any qualification.

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ABSTRACT

The study was carried out at Windhoek Central and Katutura Hospitals, Khomas Region, Namibia. Mothers living with HIV who have children aged 0-3 years participated in the study. It examined factors and the rationale why the majority of HIV positive mothers choose breastfeeding despite the risk of infecting their infants with HIV. It further aimed to establish the effectiveness of infant feeding counseling offered to pregnant women at ante natal clinics. The second part involved key informants from government ministries, local government and non-governmental organisations (NGOs) to determine specific programmes for mothers living with HIV in their institutions. Evidence was gathered from mothers living with HIV through questionnaires and documentation.

The study revealed that mothers were offered counselling: 52.2% from nurses, 30.4% doctors and 17.4% HIV and AIDS Counsellors. Advice provided included the means on how to minimise HIV transmission during pregnancy, birth and during breastfeeding. Infant feeding options were discuss but breastfeeding was mainly recommended. The quality of counselling was not established. A number of women would like to understand more why mix feeding is not appropriate.

The majority of respondents 72.4% said they breastfed their children, 25.0% used formula milk while 2.6% mixed feeding. Reasons for their choices comprised lack of money to buy formula milk and advice from the health workers. Respondents knew that HIV can be transmitted from a mother to her infant, and therefore preferred formula milk. However, they were not in a position to buy formula milk. It is thus recommended that government should consider providing formula milk to such mothers.

OPSOMMING

Die studie is uitgevoer by Windhoek Sentraal en Katutara Hospitale in die Khomas Streek van Namibië. MIV-positiewe moeders met kinders tussen 0-3 jaar het aan die studie deelgeneem. Die doel van die studie was om te bepaal hoekom die meerderheid MIV-positiewe moeders verkies om te borsvoed, ten spyte van die risiko wat die inhou om moontlik MIV na hul babas oor te dra. ‘n Verdere doel was om die effektiwiteit van borsvoeding-berading, wat aan swanger vroue by voorgeboorte klinieke aangebied word, vas te stel. Inligting is ingesamel deur middel van vraelyste en dokumentasie.

Die studie toon dat die moeders berading van verpleegsters, dokters en MIV/Vigsberaders ontvang het. Die berading het gefokus op hoe om die risiko van MIV-oordrag tydens swangerskap, geboorte en borsvoeding te verminder. Die kwaliteit van die berading is egter nie gemeet nie. ‘n Aantal moeders sal graag wil weet hoekom gekombineerde voeding nie aanbeveel word nie.

Die meerderheid van die deelnemers (72.4%) het aangedui dat hul borsvoed, 25% gebruik formule melk en 2.6% gebruik ‘n kombinasie van die twee. Hoewel die deelnemers besef dat MIV deur middel van borsvoeding oorgedra kan word, is hul nie in die posisie om formule melk te koop nie. Die mees algemene rede waarom hul steeds borsvoed is ‘n tekort aan geld om formule melk te koop en ook ‘n tekort aan raad van gesondheidswerkers. Daar word dus aanbeveel dat die regering dit moet oorweeg om formule melk aan sulke moeder moet voorsien.

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ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immuno-deficiency Syndrome
ANC	Ante Natal Care
ARV	Anti-retroviral Medicine
BCC	Behaviour Change Communication
CACOC	Constituency AIDS Coordination Committee
CAA	Catholic AIDS Action
CBO	Community-Based Organisations
CSO	Civil Society Organisations
DHS	Demographic and Health Survey
DSNSF	National Strategic Framework for HIV and AIDS 2010/11-2014/15
HIV	Human Immuno-Deficiency Virus
IEC	Information Education and Communication
MOHSS	Ministry of Health and Social Services
MTP	Medium Term Plan
MTCT	Mother to Child Transmission
NANASO	Namibia Network of AIDS Services Organisation
NANGOF	Namibia NGO Forum Trust
NGO	Non-Governmental Organization
NWHN	Namibia Women Health Network
PCR	Polymerase chain reaction
RHTC	Routine HIV Testing and Counselling
PMTCT	Prevention of Mother to Child Transmission
RACOC	Regional AIDS Coordination Committee
SPSS	Statistical Package for Social Science
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Fund
UNGASS	United Nations General Assembly Special Session
VCT	Voluntary Counselling and Testing
WHO	World Health Organisation

1. INTRODUCTION

Mother-to-child transmission (MTCT) of HIV is now a major public health issue. The term MTCT refers to the vertical transmission of the HIV and AIDS virus from the mother to the child during the perinatal period. Currently, an estimated 2.1 million children under 15 years are living with HIV as a result of mother-to-child transmission. In Namibia, approximately, 14,000 children were living with HIV in 2008 and about 4000 children get infected each year. Of almost all these, 90% are the result of mother-to-child transmission during pregnancy, labour and delivery, or breastfeeding (UNAIDS, 2008).

With the awareness that HIV can be transmitted through breastfeeding, policy makers and health workers are under pressure to come up with guidelines on infant feeding for mothers living with HIV. These are aimed at preventing MTCT of HIV while at the same time protecting, promoting and supporting breastfeeding for women who are unaware of their HIV status (World Health Organisation, 2007).

The advantages associated with breastfeeding are life-saving benefits (Burns, 2001). On the other hand, the risk of HIV transmission makes it very difficult for mothers living with HIV to choose appropriate feeding options for their infants. Therefore, infant feeding counselling is a crucial component of the strategies in order to reduce MTCT. Counselling provides mothers and their partners information that assists them in selecting the safest feeding strategy suitable to their own situation.

1.1 Statement of the Problem

Namibia has committed to the United Nations General Assembly Special Session (UNGASS) PMTCT goal which aims to "*reduce the proportion of infants infected with HIV by 20 per cent by 2005, and by 50 per cent by 2010 by:*

- *Ensuring that 80 per cent of pregnant women accessing antenatal care have information, counselling and other HIV-prevention services available to them*

- *Increasing the availability of and providing access for HIV-infected women and babies to effective treatment to reduce mother-to-child transmission of HIV: and through*
- *Effective interventions for HIV-infected women, including voluntary and confidential counselling and testing, access to treatment, especially anti-retroviral therapy and, where appropriate, breast milk substitutes and the provision of a continuum of care."*

Namibia has a national target of 90% for Prevention of Mother-to Child Transmission (PMTCT), to reduce MTCT from 30% to 15% by 2010 (MOHSS, 2008).

However, while interventions for PMTCT have been initiated in all regions of the country, infant feeding remains a challenge. Similarly, while experiences developed world, e.g. United Kingdom, suggest that complete avoidance of breastfeeding results in a significant reduction of HIV infection in infants, the majority of women living with HIV in Namibia continue to breastfeed their babies (MOHSS, 2007). Whether this choice is based on information and knowledge about HIV transmission or lack of it is not known. Hence, there is an urgent need for research on infant feeding practices to guide policies and for the implementation of PMTCT.

This study, therefore, intends to investigate the reasons as to why a large number of HIV-positive mothers in the Khomas Region in Namibia select the breastfeeding option despite the risk of HIV transmission. Specifically, the study will also examine infant feeding counselling provided at ante natal clinics (ANC).

1.2 Objectives

This study has the following objectives:

- To determine the reasons why the majority of HIV-positive women in the Khomas Region continue to opt for breastfeeding.

- To establish whether HIV-positive mothers receive quality counselling and advice that provides information in order for them to make informed decisions on infant feeding options.

- To establish how the follow-up system of HIV-positive mothers and their infants works, how this is documented and who does it.

1.3 Research question

This study intends to answer the following question:

Why do the majority of HIV positive mothers in Namibia (Khomas Region) choose to breastfeed despite the danger of transmitting HIV to their infants?

To answer this research question, a survey method through a questionnaire was used. A desktop review of the relevant literature to collect factual information was conducted. Seventy women living with HIV were interviewed to get their opinions about infant feeding. Further, an attempt was made to determine whether the counselling provided by ANCs is effective. A combination of face-to face and telephonic interviews with managers and HIV and AIDS focal persons were employed to determine if they have HIV and AIDS Workplace Policies and programmes for mothers living with HIV.

This thesis is structured as follows. The first chapter provides background to the study, including the research problem. The second chapter gives an overview of the problem taking into account international research evidence on MTCT. Chapter 3 describes the methodological issues, study design, data collection and the instruments used. Chapter 4 presents the results, and Chapter 5 gives an analytical discussion, conclusion and recommendations.

2. LITERATURE REVIEW

2.1 Background

According to Joint United Nations Programme on HIV/AIDS (UNAIDS), 33.4 million people are living with HIV and AIDS worldwide (UNAIDS, 2009). Sub-Sahara Africa remains the epicentre of HIV epidemic with about 22.4 million people, 60% of which are women (UNAIDS). Southern Africa is most affected and nine countries have prevalence greater than 10%, though HIV incidence seems to be declining with the exception of Angola where the incidence had been reported to be rising in rural areas.

Namibia is among the ten countries in the world with the highest HIV prevalence rate of over 17% (MOHSS, 2008), and about 180,000 adults between 19-49 years of age are living with HIV in Namibia (UNAIDS, 2008). According to the MOHSS, in 2007/08, the estimated total number of new infections was 14,100, and this number is expected to increase over the next five years. This means the HIV prevalence will continue to be high because people who are on antiretroviral (ARV) are living longer compared to 8-10 years ago.

In Namibia, AIDS is the leading cause of death. The Report on the Estimation and Projections of the Impact of HIV/AIDS in Namibia reckons that in 2006/2007, 6,900 people died as a result of HIV and AIDS alone. UNAIDS (2008) indicated that this number may be as high 8,200.

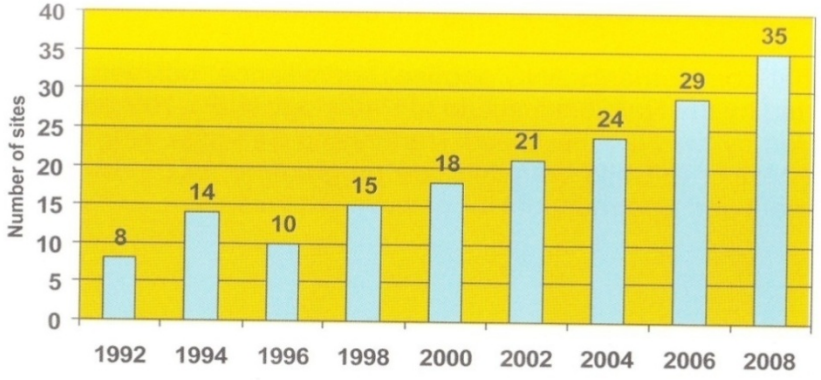
Namibia is one of the countries with many women living with HIV. For example, in 2007, the number of women living with HIV was estimated to be 110,000 (UNAIDS, 2008). The data for 2007 is not available but in 2006, 21.1% of the women living with HIV were pregnant. Thus, MTCT of HIV is now a major public health problem. For instance, in 2008, an estimated14, 000 children were living with HIV and about

4000 children get infected each year (MOHSS, 2008; UNAIDS, 2008). Of these, 90% are the result of mother-to-child transmission during pregnancy, labour and delivery, or breastfeeding (UNICEF, 2002; Burns, 2001; Bulteel and Henderson (undated; Linkages Project, 2005).

In order to slow down the epidemic, measures have been put in place. The sentinel surveillance conducted every two years is one important milestone whereby HIV testing is carried out on blood samples collected from pregnant women attending ante natal clinics. The results analysed are used to predict the national HIV prevalence.

Participating sentinel sites have been selected on the basis of regional coverage, geographic location (e.g. rural or urban) and the volume of antenatal clinic (ANC) attendees at each site. In 1992, eight health facilities participated in the sentinel surveillance. This has been increased to fourteen in 1994 and to twenty-four by 2004. From 2004, the sentinel surveillance covered all thirteen regions of Namibia. Thus, the 2006 sentinel sites included 79 health facilities in 29 sites (urban and rural), and in 2008, all 34 districts in 35 main hospital sites, with 9 supporting satellite sites (health centres and clinics). See figure 1 below for further information.

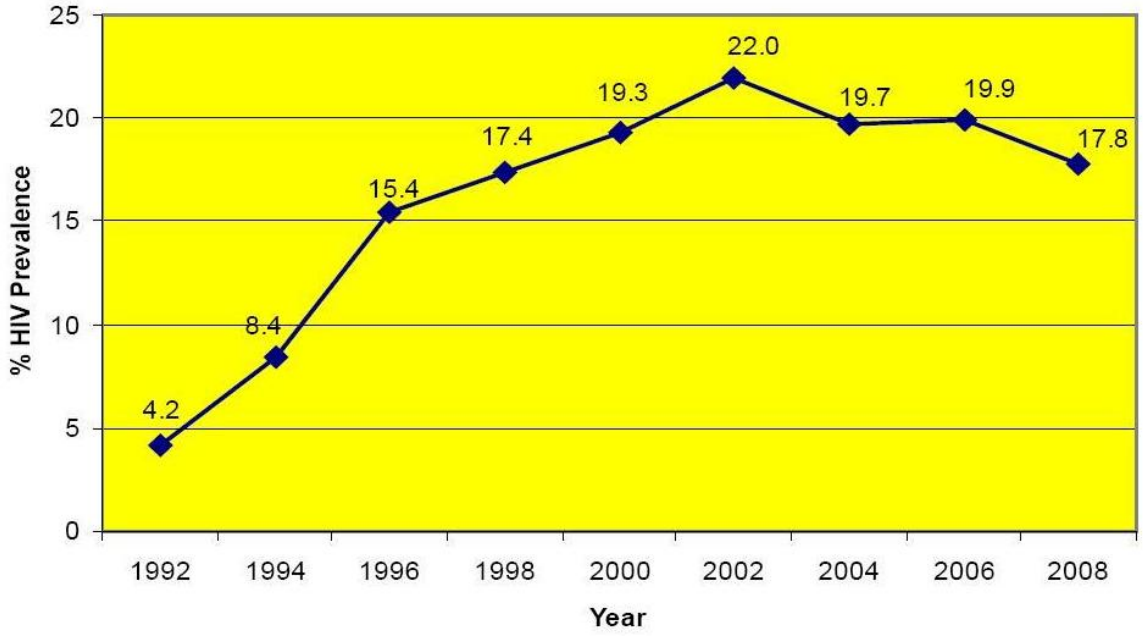
Figure 1. Number of participating Sentinel Surveillance main sites since 1992



Source: Report on the 2008 National HIV Sentinel Survey

Data on overall trends suggest a rapid increase in HIV prevalence from 4% in 1992 to over 17% in 2008 among women attending antenatal clinics. It reached a peak of 22.3% in 2002 before it showed signs of stabilisation and statistical significance decline (DSNSF, 2010-2015). For example, the 2008 sentinel survey was conducted in 34 health districts with 8,174 pregnant women who attended ante natal clinics. The results showed a national prevalence of 17.8%, among pregnant women, ranging from 6 per cent to 32 per cent in the different testing centres in all the regions of Namibia (MOHSS, 2008). This means that Namibia has a generalised epidemic. In sum, HIV has spread beyond the original subpopulation with high risk behaviour, and prevalence among pregnant women attending antenatal clinic is 5% or more. Refer to Figure 2 below.

Figure 2. Analysis of HIV Prevalence rate by year



Source: Sentinel survey 2008, MOHSS

During the 2008 sentinel survey, the highest prevalence rate of 27% was observed among women aged 30-34 years. Amongst young women, it declined from 11% in 2002 to 5% in 2008 among 15-19 year old women, and from 22% in 2002 to 14% in 2008 among women aged 20-24 years as illustrated in table.

Table 1. HIV prevalence rate by age group, 2008 HIV Sentinel Surveillance, Pregnant women in Namibia

Age group	Number of women aged 15-49 years		% HIV Prevalence Rate
	Total Tested for HIV	Tested Positive	
15-19	1505	77	5.1
20-24	2424	339	14.0
25-29	1873	445	23.8
30-34	1204	327	27.2
35-39	741	193	26.0
40-44	248	44	17.7
45-49	29	4	13.8
Namibia	8024	1429	17.8

Source: Sentinal survey 2008, MOHSS

Whilst the infection rate has reduced from 22% in 2002 to 19.7% in 2004, and then to 17.8% in 2008 (MOHSS, 2008), the HIV prevalence rate is still high. This means that early interventions have not been effective either because they have failed to consider scientific evidence on how best to do so or have not been implemented efficiently to show an impact. The Draft National Strategic Framework for HIV and AIDS (2010/11-2014/15 states:

"*Success under MTP III occurred in Prevention, Treatment, Care and Impact mitigation. MTP III however used a vertical approach in the response to HIV and AIDS that was not successful in achieving the intended results" (p 4.)*

Hence, there is a need for new programmes to take into consideration the drivers of the epidemic in the long-term and with special focus on men. Most HIV and AIDS initiatives targeted or predominately involved women (MOHSS, 2008). Additionally, it is well known that targeting men for HIV prevention is also a way to protect women and their families. The Namibia's Medium Term Plan (MTP III) National Strategic Plan on HIV/AIDS (2004-2009) and the Third Medium Plan (MTP III) Mid-Term Review highlighted the urgent need to scale up HIV prevention, with a specific call for additional efforts to enhance the involvement of men in the national response to the HIV and AIDS epidemic. The Minister of Health and Social Services, at the 1st National HIV and AIDS Male Leaders Conference in 2008 reported that efforts to scale up care activities were hampered by the lack of active participation of men. For instance, only one third of patients in Antiretroviral (ARV) programmes are male.

Thus, the National HIV and AIDS Male Leaders Conference in 2008 provided a platform for Namibia to deliberate on how to involve men in HIV prevention. The conference came up with a list of suggestions that would increase male participation.

2.2 PMTCT Response

In recognition of the threat and challenge posed by HIV and AIDS, Namibia has responded meaningfully to the epidemic. The MOHSS is entrusted with the coordination of HIV and AIDS in the implementation of the Medium Term Plan III 2004-2009) which guides multi-sectoral responses to the epidemic. The MTP III has put in place strategies to prevent the spread of HIV and AIDS and to mitigate the impact of the disease in the population. Other relevant policies and guidelines have also been formulated such as: the National Guidelines for Antiretroviral Therapy (2003), Guidelines for the Prevention of Mother-to-Child Transmission of HIV (2004), and the National Policy on Infant and Young Child Feeding (2003), among others. National and regional mechanisms such as the Regional AIDS Coordination Committees (RACOCs) and Constituency AIDS Coordination Committees (CACOCs) are also in place. The Medium Term HIV/AIDS Strategic Plan and the Draft National Strategic Framework for HIV and AIDS were revised to span over the years 2010-2015.

Namibia has also made strides in addressing the HIV epidemic through universal access to ARV treatment and to date, has provided ARVs to 70% of people living with HIV and AIDS. The national target of reaching 30,000 people on ARVs by 2008 was reached in 2006 i.e. individuals on treatment were 33,59. Out of these, 60% of ARVs patients were women and 13% paediatric. There was an estimated 6,000 people in the private sector on ARVs in 2007. Without HIV care, including antiretroviral therapy, the progression of the HIV infection can be aggressive. Thus, treatment has improved the quality of life for many people.

In prevention, the introduction of rapid testing has reduced the non-return rate from 13% to below 1% in New Start sites (HIV and AIDS counselling and testing centres) due to increased awareness, Behaviour Change Communication (BCC) and outreach activities around the country. Namibia is also one of the countries in Africa

with the capacity for early infant diagnosis. This presents the opportunity for reducing MTCT.

Diagnosis of an HIV infant is an essential strategy in reducing MTCT as it provides information that guides the decision of feeding options and enables immediate treatment for those found to be infected in order to prevent illness and death. For instance, in 2006/2007, through the Polymerase Chain Reaction (PCR), a total number of 4, 202 infants were tested, 3,461 (82%) were first tested for an HIV exposed infant, 432 (10%) for symptomatic infants and 309 (7%) repeated PCR. The HIV prevalence varied by reason for test, i.e.13.0% for asymptomatic first PCR tests, 8.3% for repeat PCR tests, and 25.7% for symptomatic tests. However, even though Namibia is one of the few developing countries with the technology available to test infants for HIV, there is no data to show whether there is a reduction in the number of infants being infected by their mothers.

According to the MOHSS (2008), since the introduction of DNA PCR in 2005, 58 facilities have been reached and in 2006, 7,000 tests were conducted and 900 HIV-positive infants were identified. An information system to record PCR was also designed and the results from the system show a 12% transmission rate when a mother and infant received ARV (single dose NVP) compared to the 30.4% in the absence of treatment.

PMTCT was launched in 2002 in Namibia as a pilot programme at the Katutura and Oshakati State Hospitals. These hospitals were chosen on the basis of being densely populated, and with the highest number of HIV cases. The programme aims to prevent mother-to-child transmission during pregnancy, delivery and through breastfeeding. Under the programme, mother, father and baby are to benefit from PMTCT therapy that includes antiretroviral drugs. The programme has specific objectives namely:

- Giving counselling on “exclusively breast-feeding”, for a period of 4-6 months in order to avoid transmission during breast-feeding.
- Giving counselling about safe sex during pregnancy and breast-feeding, in order to avoid transmission of HIV during these periods.
- Providing voluntary counselling and testing for HIV to pregnant mothers in order to identify HIV-positive mothers and to counsel mothers about the possible results that could be positive or negative.
- Counselling about the best infant feeding option for mothers depending on affordability.
- Giving mothers Nevirapine during labour and to the baby after birth in order to reduce/prevent HIV transmission at delivery.
- Encouraging mothers to bring their spouses to also attend counselling sessions with them.

In 2003, the programme was expanded to other state hospitals: Katima Mulilo in Caprivi region, Rundu in Kavango region, Katutura and Central Hospital Windhoek, in Khomas region, Keetmanshoop in the Karas region and Walvis Bay in Erongo region. Today, 188 health facilities are providing PMTCT, 74 sites have rolled out rapid testing and almost all health facilities are providing pre and post HIV testing.

2.3 The Impact of the PMTCT Programme

The PMTCT interventions are accessed through antenatal clinics or labour and delivery wards. At antenatal clinics, pregnant women and their spouses are provided with counselling and voluntary testing and treatment for those who test HIV-positive. Since 2004, about 114,307 pregnant women started Ante Natal Care (ANC) at PMTCT clinics. Out of these women, 94% were pre-tested and counselled and 89% of whom had an HIV test (MOHSS, 2008). Thus, the programme effectively allows for HIV status to be established and interventions to be provided in order to prevent transmission to the infant. Furthermore, safe obstetric practices, safer infant-feeding counselling, links to care and support and careful infection prevention practices were carried out.

The Linkages Project (2005), (a project designed to give clinic-based health workers and supervisors a basic understanding of HIV facts and prevention, mechanisms of mother-to-child transmission (MTCT) of HIV, current MTCT risk reduction interventions, and infant feeding in the context of PMTCT), emphasised the importance of testing and counselling as one of the strategies to reduce mother-to-child transmission of HIV. This is because it provides women and their partners with the information on the presence or absence of HIV infection and a context in which to discuss infant feeding options. Effective counselling can help an HIV-positive woman select and practice the safest infant feeding strategy for her situation. Ideally, women should be counselled during pregnancy and after delivery to ensure they have adequate time to make infant feeding decisions and support to implement future pregnancies and HIV prevention practices.

The DHS of 2006 cited in UNGASS Namibia Country Report showed a 96% attendance. It also indicated that 81% of deliveries in the last 5 years were conducted by trained health professionals in a health facility. This means that the opportunity to reach most pregnant women with PMTCT service is high (UNGASS Country Report, 2007). What is not clear though is whether the services provided are leading to a reduction in MTCT, given the lack of data.

The Namibia programme is in line with the global guidance of scaling up PMTCT on the basis of 10 guiding principles and follows the comprehensive four-pronged strategy recommended by the United Nations. This is implemented as an integral part of essential maternal, newborn and child health services. The strategy advocates for the prevention of infection among women of reproductive age in general and promotes counselling and family planning among women living with HIV in order to prevent pregnancy. It also includes identifying and treating infected pregnant women in order to reduce the risk of transmission, helping women living with HIV to access care and treatment and follow ups for babies are also suggested.

There is no doubt that the Namibian PMTCT programme is successful. However, a lot remains to be done in the area of infant feeding counselling. Though Namibia has the technology for early infant diagnosis, and many infants have tested HIV negative, the majority of mothers living with HIV are still advised to breastfeed their infants in spite of the risk of HIV transmission. Thus, logic behind early diagnosis combined with continued breastfeed is difficult to comprehend as the possibility of HIV transmission to the baby is still present.

Additionally, the National Policy on Infant and Child Feeding is biased and clearly promotes breastfeeding at the expense of other options. As Dr Libertina Amathila, the then Minister of Health and Social Services clearly demonstrated:
"the government, through this policy is re-affirming its commitment to breastfeeding, and defines ways to manage HIV within the overall strategy of prevention of mother to child transmission, and the National Strategic Plan for HIV/AIDS (Medium Term Plan II, 1999-2004). Exclusive breastfeeding for six months will be promoted for all mothers as a public health measure, and from six months mothers will be advised to introduce nutrition foods with continued breastfeeding to about two years"

Namibia's Food and Nutrition Policy of 1995, the draft HIV/AIDS Policy of 2001 are all supportive of breastfeeding. This goes to show government's reluctance to change focus even in the face of scientific evidence that suggests that other feeding options like formula milk and others can make a significant contribution to the reduction of MTCT (Rollins et al**.,** 2008).

There is enough evidence that a mother living with HIV can transmit the virus to her infant. Ndjadila and Shapumba (2003) in a study in Oshakati for the Infant Feeding Research Project suggested an increased transmission from mothers to children in Namibia due to breastfeeding, particularly if not done exclusively. The National Policy on Infant and Young Child Feeding (2003) reported that in 2002, 22 in every 100 pregnant mothers who attended antenatal care were HIV positive. About 30% of these mothers were estimated to have transmitted the virus to their babies. Out

of 6.6% mothers, 4.6% will transmit the virus during pregnancy or birth and 2 will transmit the HIV virus through breastfeeding.

UNICEF, (2002) underscored the fact that an HIV infected pregnant woman can transmit HIV to her baby in *utero*, during delivery and through breastfeeding at the rate of 14-42% in developing countries where breastfeeding is more common and 14-25% in the developed world De Cock, K.M.; Fowler, M.G. and Mercier, E. et al, (2000) cited by Israel and Huber (1999) further reported that breastfeeding for up to two years may be responsible for one-third to one-half of HIV infections in infants and young children in African countries. Specifically, an estimated 5-20% of infants born to mothers living with HIV acquire infection through breastfeeding.

Israel and Huber (1999) highlighted several factors that are thought to increase the risk of transmission through breastfeeding:

- If a mother contracts HIV during pregnancy, specifically in the postnatal period due to the high viral load around the time of transmission. There is bound to be a 29% transmission rate if the mother seroconvert's while breastfeeding.
- If a mother breastfeeds for a period longer than 6 months.
- Nutritional deficiencies in the mother like anaemia make the mother less receptive to anti-viral therapy
- Mastitis's, cracked nipples especially with Vitamin A deficiency and poor breastfeeding technique, or sores/breaks in the infant's oral mucosa.

Evidence from developed countries such as the United Kingdom indicates that paediatric HIV is almost entirely preventable. For example, the number of infant infections has plummeted to 2% and the survival rates of children living with HIV have improved**.** The majority 80% of these children now live past the age of six years (Avert, 2008; African Network for the Care of Children Affected by AIDS, 2004). The success is mainly due to timely diagnosis of HIV, access to paediatric ARVs or cotrimoxazole or both and complete avoidance of breastfeeding.

Table 2: Estimated risk and timing of MTCT of HIV in the absence of interventions

Timing	Transmission Rate
During pregnancy	5-10%
During labour and delivery	10-15%
During breastfeeding	5-20%
Overall with breastfeeding	15-25%
Overall with breastfeeding to 6 months	20-35%
Overall with breastfeeding to 18 to 24 months	30-45%

Source: Adapted from De Cock, KM, Fowler, MG, Mercier E, et al., 2000

Proponents of breastfeeding argue that it is the best nutrition for babies as it protects against deadly childhood illnesses, delays return to fertility, costs almost nothing and promotes bonding and social/emotional development in infants. However, while the benefits of breastfeeding by HIV-negative mothers cannot be denied, the same cannot be said for mothers living with HIV, see Table 2. The need to address replacement feeding for these mothers and their infants cannot be stressed enough. This is all the more important in urban settings where access to water and support services for the mothers and infants is available.

3. METHODOLOGY

In order to carry out the survey, government approval was sought and obtained from the MOHSS. The project proposal was presented to the Permanent Secretary at the MOHSS and thereafter approved by the Research Committee Members on condition that a copy of the dissertation would be submitted to the Permanent Secretary of the MOHSS within a period of 3 months after completion of the survey.

The research employed both qualitative and quantitative data collection techniques: in-depth interview and literature reviews. A structured questionnaire was used to

interview women living with HIV at Windhoek Central and Katutura Hospitals, and key informants from government ministries, City of Windhoek and non-governmental organisations (NGOs) to determine specific programmes for mothers living with HIV in their institutions.

3.1 Research Design

The survey is a descriptive research design and a non-experimental research aimed at providing an accurate description of the situation and the identification of the relationship between the variables (Christensen, 2007). Bell (1987) asserts that surveys are appropriate for investigating what already exists, and therefore can be used to collect information aimed at describing the nature of existing conditions. According to Christensen, a survey is "a field study in which an interview technique is used to gather data on a given state of affairs in a representative sample of the population".

3.2 Population

The survey consisted of two populations: women living with HIV were interviewed at Windhoek Central and Katutura hospitals and key informants consisting of managers and HIV and AIDS focal persons from government ministries, parastatals and non-governmental organisations in the Khomas region. The Khomas region was selected for its high rate of urban migration of people from other regions and therefore, provided an opportunity for a cross-section of women to participate in the survey. Furthermore, time constraints and limited resources made it realistic to focus on one study region.

3.3 Sampling and Sampling Design

To test the hypothesis, a random, non-probability sampling technique was used. This technique ensures that the sample of participants is based on convenience and includes individuals who are readily available. Thus, it was thought appropriate since it allows for subjects to be selected on convenience and for being readily available for interviews until the sample size is enough. For example, the

researcher went to PMTCT clinics and interviewed women who came to attend on the day. The advantage of this technique is that subjects can be obtained without spending a lot of time and resources.

The limitation of this technique is that it is difficult to generalise that all respondents would have similar experiences and ideas regarding infant feeding. As a result of the limited information, some respondents may not differentiate between the researcher and hospital staff; which could bias their responses.

3.4 Measuring Instruments

The survey utilised a questionnaire to collect the information. In survey research, the questionnaire is the most common instrument used to collect data (Borg and Gall, 1989) because it is a simple concise format that can easily be administered to a sample of HIV-positive mothers and easily understood. It is also more economical in labour, money and time (Nisbet and Entwistle, 1970, Moser and Kalton, 1993). According to Bell (1987) questionnaires are:

"a good way of collecting certain types of information quickly and relatively cheaply as long as subjects are sufficiently literate and as long as the researcher is sufficiently disciplined to abandon questions that are superfluous to the main task" (p.58).

However, Moser and Kalton (1993) advise that for the questionnaire method to be successful, questions need to be sufficiently simple and straight forward and for the language used to consider the survey population. This means avoiding ambiguity, and technical expressions.

To correct ambiguities, the questionnaire was piloted with ten mothers living with HIV in Onghulumbashe informal settlement in Windhoek. The questionnaire included open-ended questions in order to allow respondents to answer in a free way; closed-ended questions for predetermined responses were also used to

ascertain facts and checklist items. Topics covered included among others, the knowledge acquired about MTCT and the services received at ANCs including post natal care and support.

3.5 Procedure

Prior to the interview, the researcher obtained permission from the Permanent Secretary of the MOHSS Mr. K. S. M. Kahuure, the hospital superintendents from the Windhoek Central and Katutura Hospitals, Dr. Saara Shalongo and Dr. C.R. Gariseb respectively in order to conduct interviews with women living with HIV at the ARV clinics. All interviews took place without prior appointment, but the researcher received advanced notice from nurses on the days and times the women would attend the clinics. The researcher waited at the clinics and randomly interviewed patients either as they waited for consultations or thereafter. Each interview lasted for approximately twenty five minutes.

With regard to the key informants, combinations of face to face and telephonic interviews were engaged. The aim was to determine if such institutions have women living with HIV openly and to establish if they have programmes specifically targeted at women living with HIV.

3.6 Data Analysis and Presentation

3.6.1 Data Reduction.

The data obtained was reduced to a controllable form of analysis. First questionnaires were edited through checking for completeness, accuracy and uniformity. Each questionnaire was then coded to classify the answers into meaningful categories in order to bring out a pattern.

3.7 Statistical Analysis

The data gathered was a blend of quantitative and descriptive. To allow for comparison of variables and to draw conclusions from the results, the Statistical Package for Social Science (SPSS) was used. Descriptive variables of age, number of children, and knowledge on HIV positive status, attendance of ante natal clinics, HIV tests, ARV treatment and feeding options were used to analyse and interpret the data. Individual responses to open-ended questions were collated, classified under common themes and included selectively for illustrative purposes in the discussion of the results. Other data analysis involved means, median and percentage.

3.8 Limitation

While the questionnaire method is considered appropriate in this particular survey, it is also recognised that the questionnaire as a tool for measurement has its weaknesses. Cohen and Manion (1994) highlighted the limitation inherent in the questionnaire in that, it may result in a lower response such that a proportion of the questions may not be answered. Another limitation concerns the fact that respondents may not provide truthful responses or may use the opportunity to exaggerate the situation. Moreover, answers to a questionnaire are accepted as final, unless re-checked or collection by the interviewer is afforded. There is also no opportunity to probe beyond the given answer, to clarify an ambiguous statement, to appraise the validity or what a respondent said in light of how she or he said it. In this sense, a questionnaire is an inflexible method (Moser and Kalton, 1993). Furthermore, the sample of seventy mothers utilized, means that the results cannot be generalised to the population. A further limitation was the lack of use of supplementary methods such as physical observation. However, information gathered could provide sufficient data that would yield summative results.

3.9 Ethical Issues

Research is guided by the principle of no harm to participants. This includes coercing people to take part in research without their consent. In compliance with

the principle, permission was obtained from the MOHSS hospital superintendents and from research participants. During the interview, an explanation about the study was provided and a consent form was given to the participants to sign. At the end of the interview, the respondents were acknowledged and were informed that the report would be shared with the MOHSS and will be available from the researcher for participants who are interested. They were also informed of the purpose of the research.

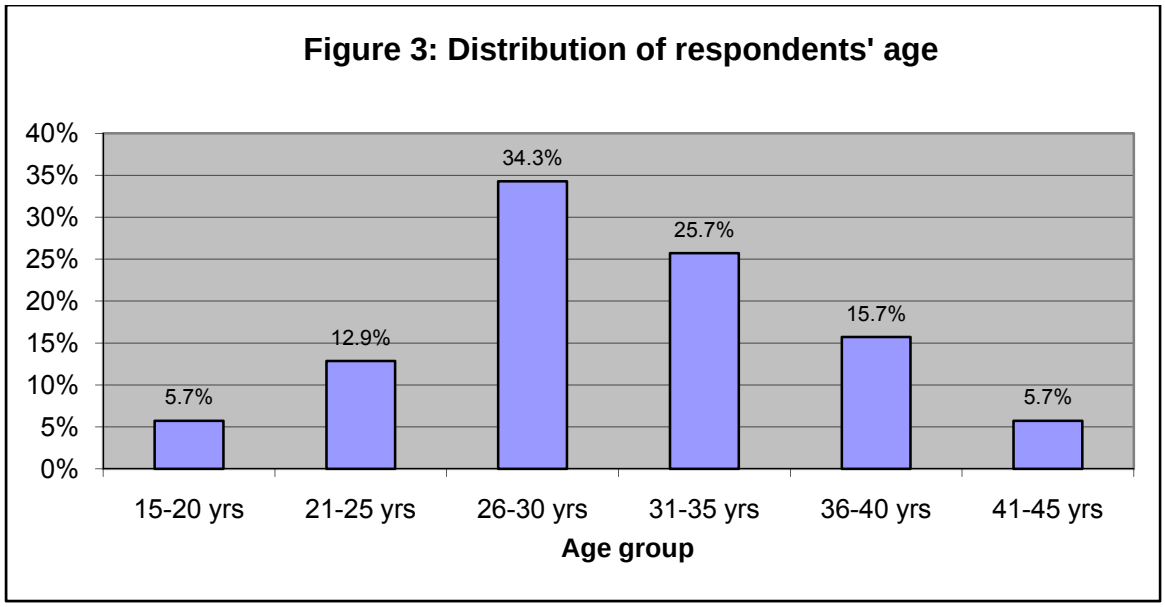
Confidentiality is the cornerstone of research ethics. To ensure confidentiality, respondents' names were not indicated on the questionnaire. Respondents were informed that their names were not needed. Confidentiality regarding information provided by organisations will be ensured through group reporting i.e. the results will not be reported on individual basis.

4. RESULTS

This chapter presents the results obtained from the interviews and analysis thereof. The analysis includes multiple questions. The questionnaire used for mothers living with HIV is attached in Appendix B. This is followed by Appendix C with the questionnaire utilised by key informants.

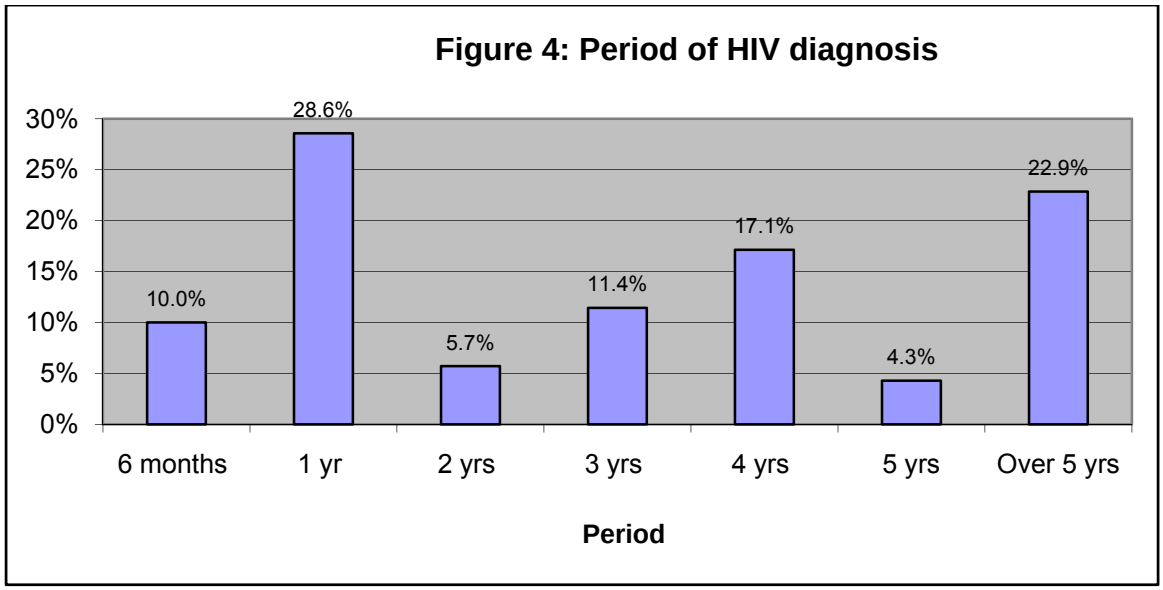
4.1 Distribution of respondents' age

The age of the respondents ranged from 15 to 45 years old and clustered at 26-30 years. Figure 3 provides more details.



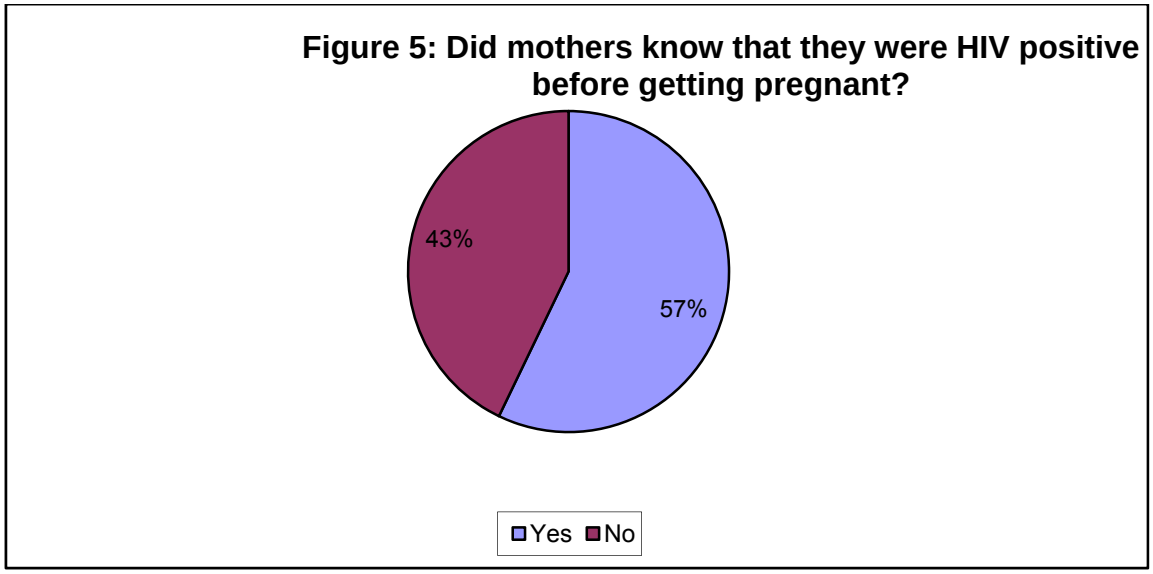
4.2 Period of HIV diagnosis

The period in which respondents were infected ranged from 6 months to over 5 years as indicated in figure 4.



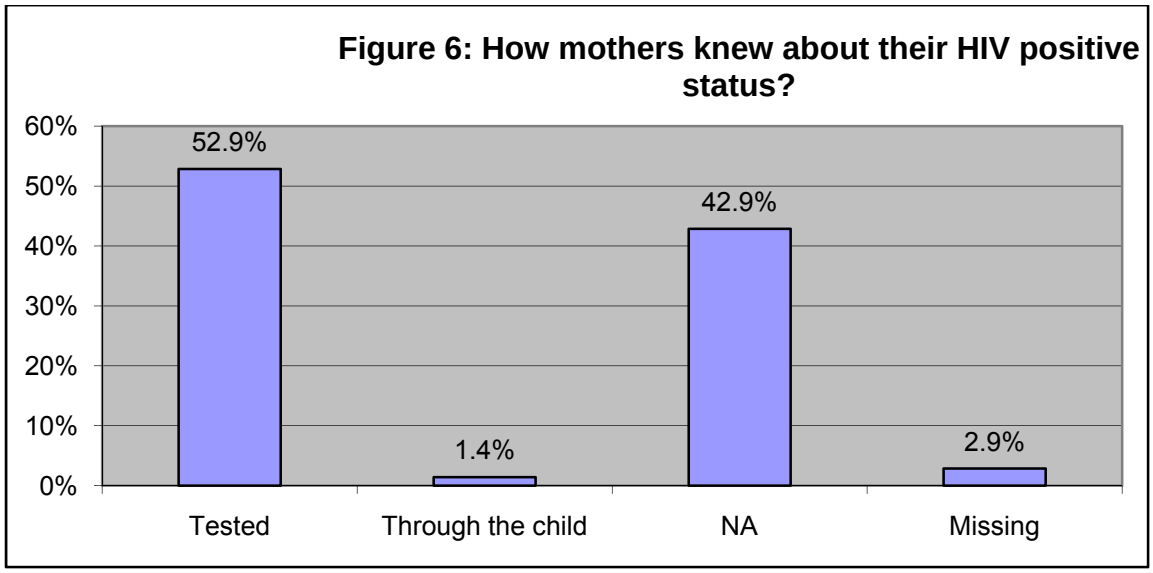
4.3 Did mothers know that they were HIV positive before getting pregnant?

As seen, from figure 5 below, 43% of their respondents knew about their HIV positive status before getting pregnant.



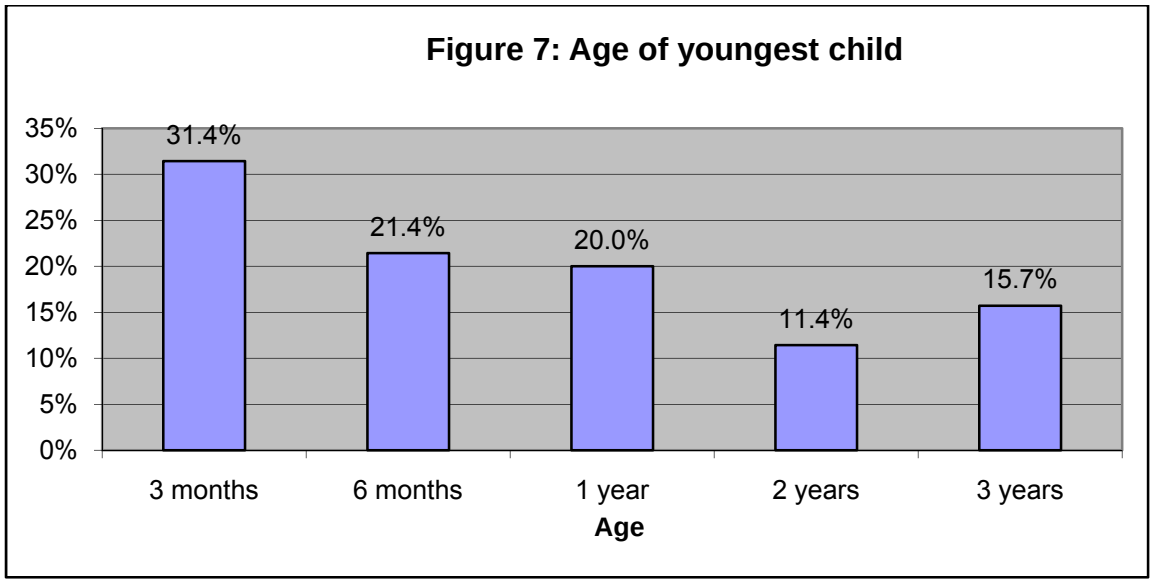
4.4 How mothers knew about their HIV positive?

Over fifty per cent of the respondents knew their HIV positive status through testing. Only one respondent knew through her child. See results in figure 6.



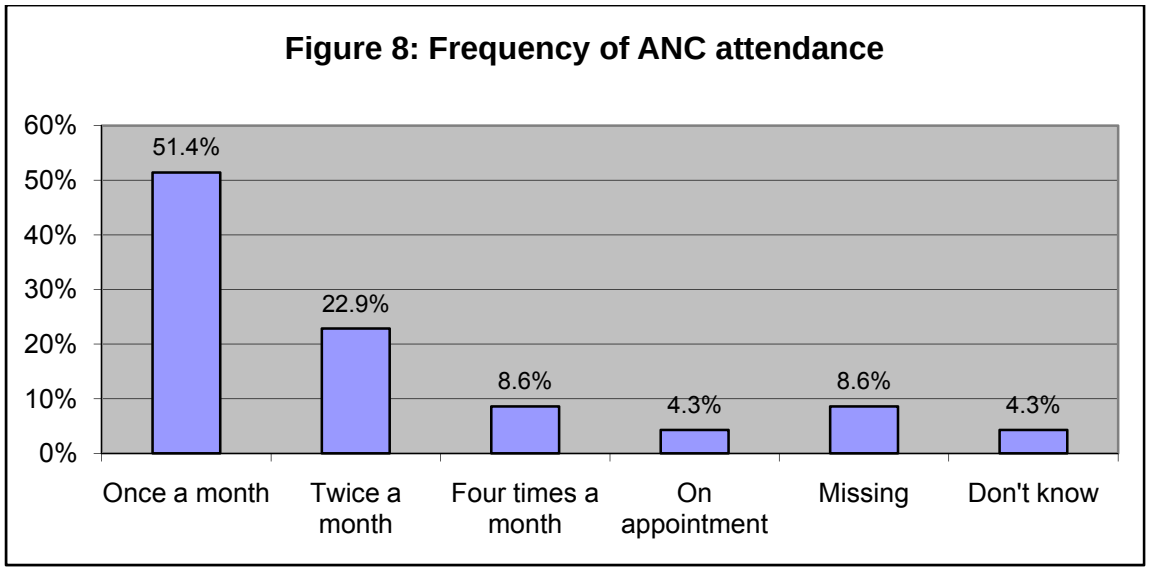
4.5 Age of the youngest child

Figure 7 illustrates that the age of the youngest child from individual respondents varied between 3 months to 3 years.



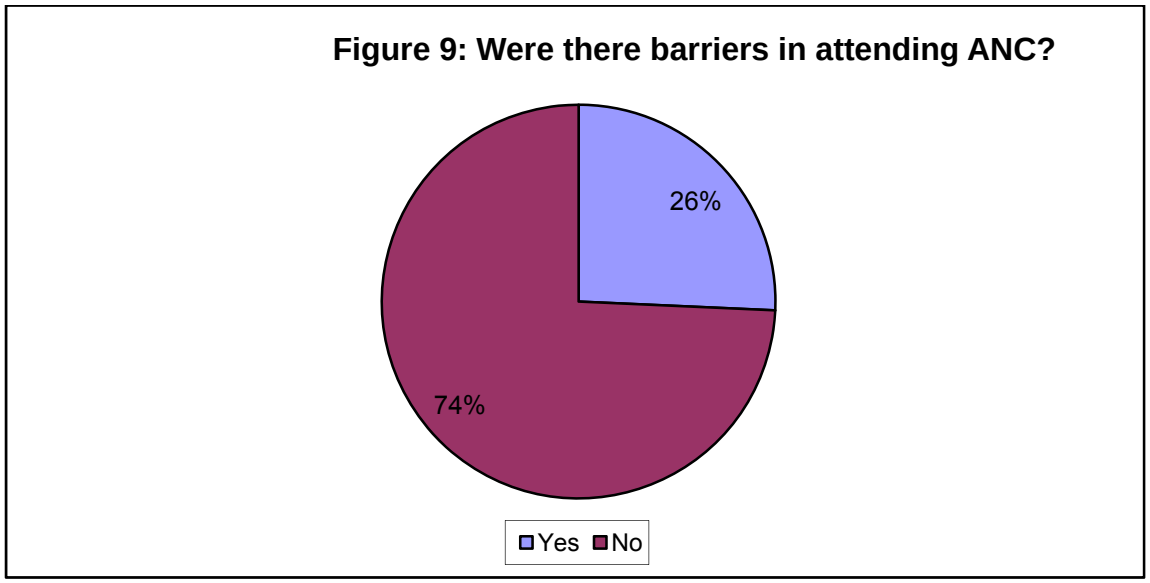
4.6 Frequency of ANC attendance

Over 50% of the respondents attended ANC once a month, about 30% twice a month, 8.6% weekly and 4.3% on appointment. The results are demonstrated in figure 8.



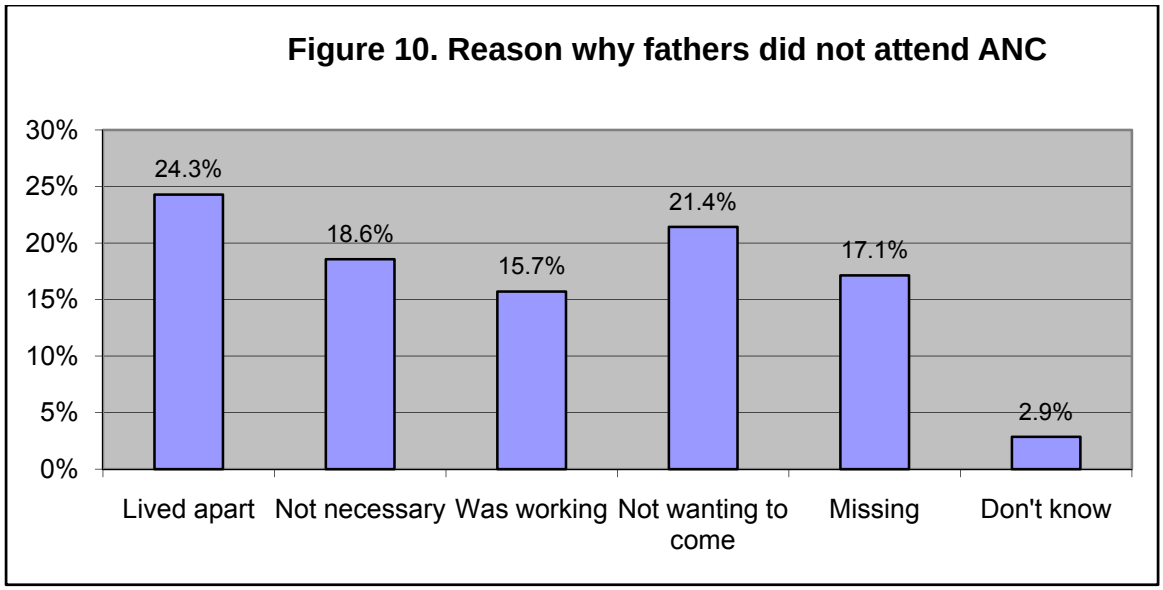
4.7 Were there barriers in attending ANC?

Figure 9 demonstrates that the majority 74% of respondents encountered no barriers. About 26% said that transport and living on a farm were some of the barriers faced.



4.8 Reasons why fathers did not attend ANC

The reasons for partners' non attendance of ANC are displayed in figure 10.



4.9 Discussions about HIV

The overwhelming majority of the respondents 88.6% said that they discussed about HIV as per figure 11.

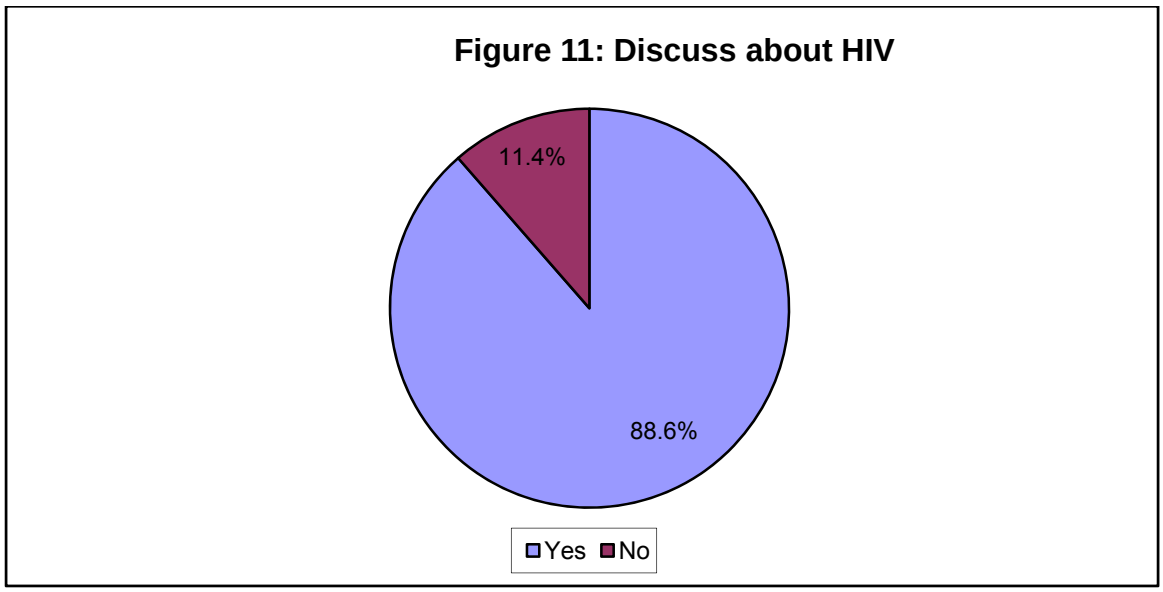
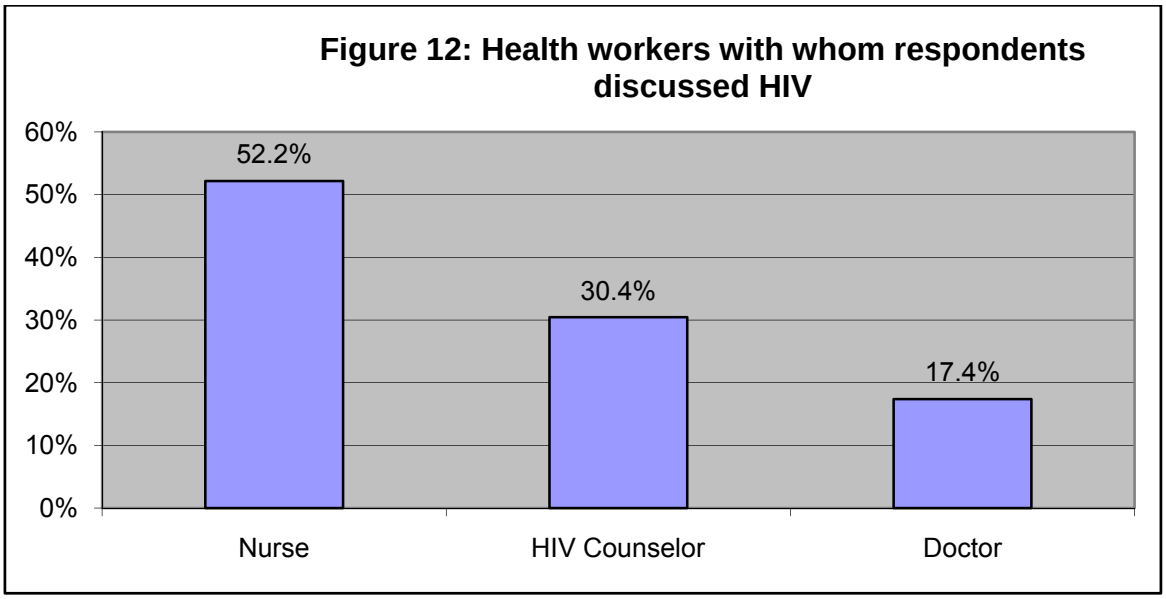


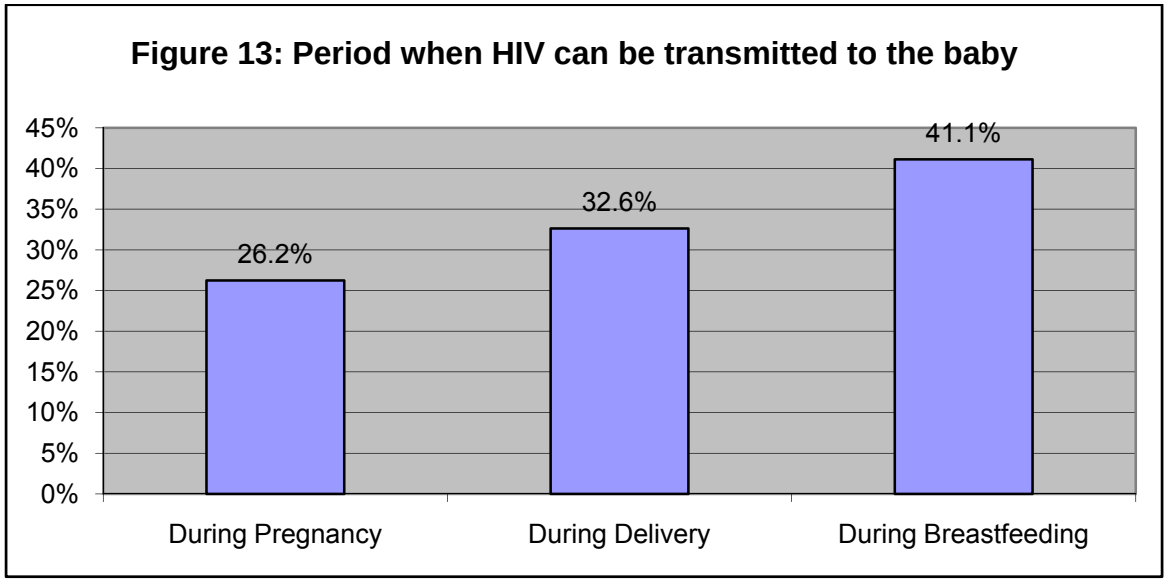
Figure 4.10 Health workers with whom respondents discussed

Figure 12 shows that a large number of the respondents 52.2% discussed HIV with nurses, 30.4% an HIV counsellors and 17.4% with doctors.



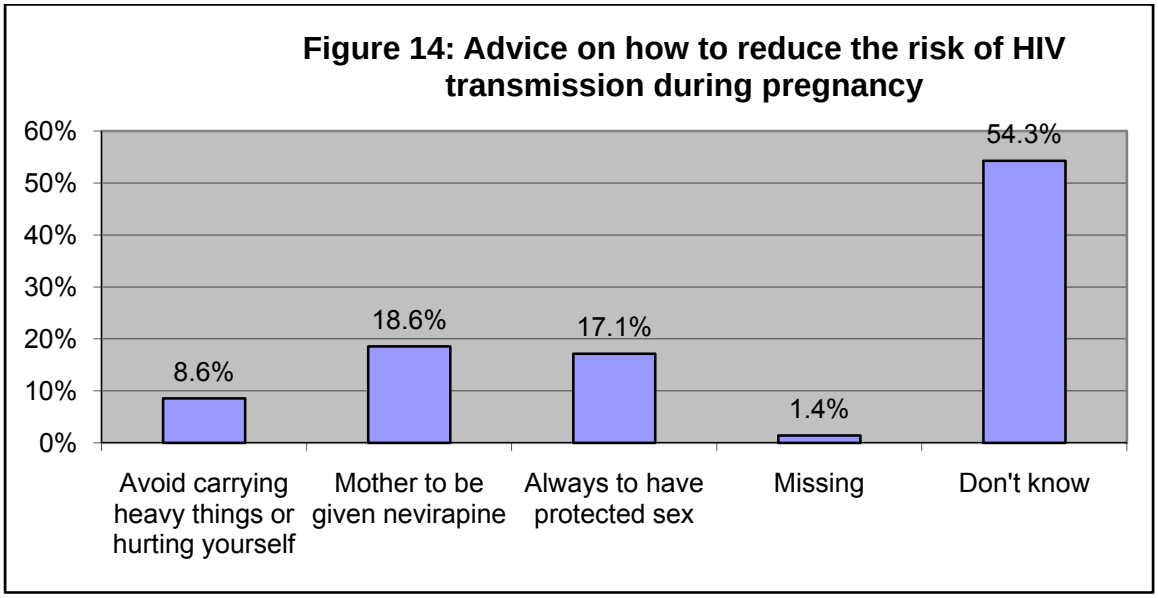
4.11 Period when HIV can be transmitted to a baby

All most all of the respondents were informed about when HIV could be transmitted to a baby. Figure 13 illustrates the percentage of when HIV can be passed on to the baby.



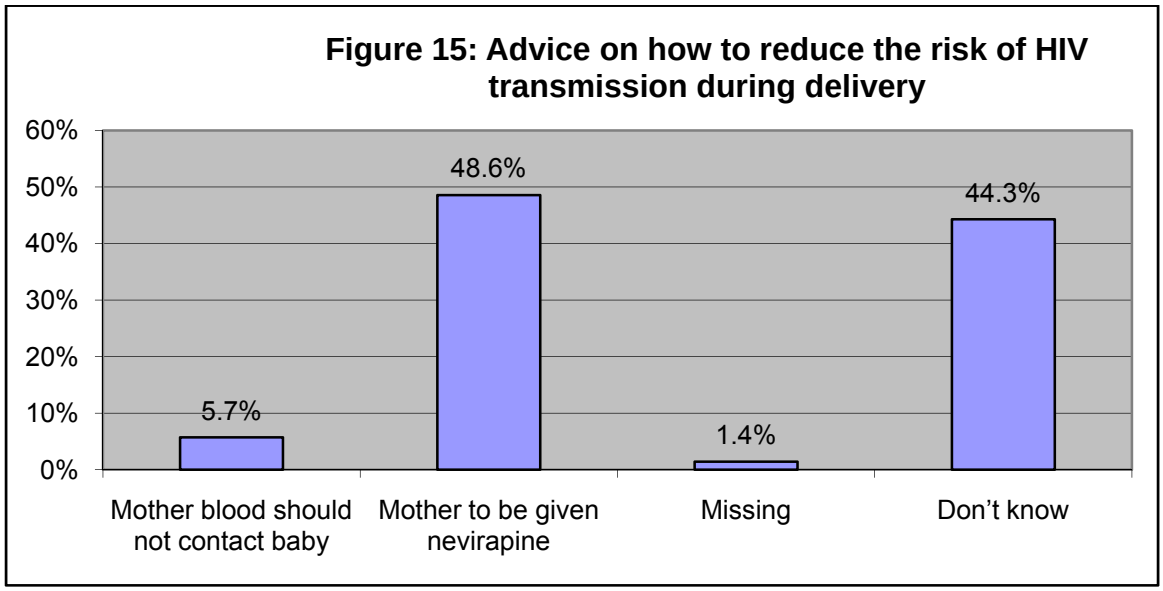
4.12 Advice on how to reduce the risk of HIV transmission during pregnancy

Advice on how to reduce HIV transmission during pregnancy is indicated in figure 14.



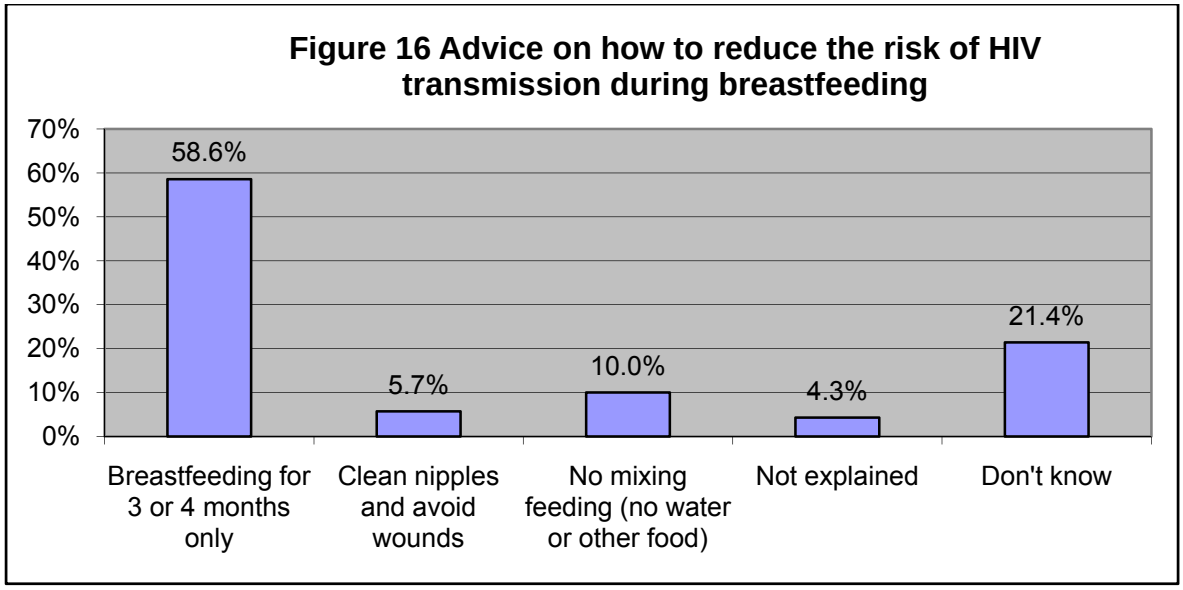
4.13 Advice on how to reduce the risk of HIV transmission during delivery

The ways in which HIV transmission can be reduced during delivery are shown in figure 15.



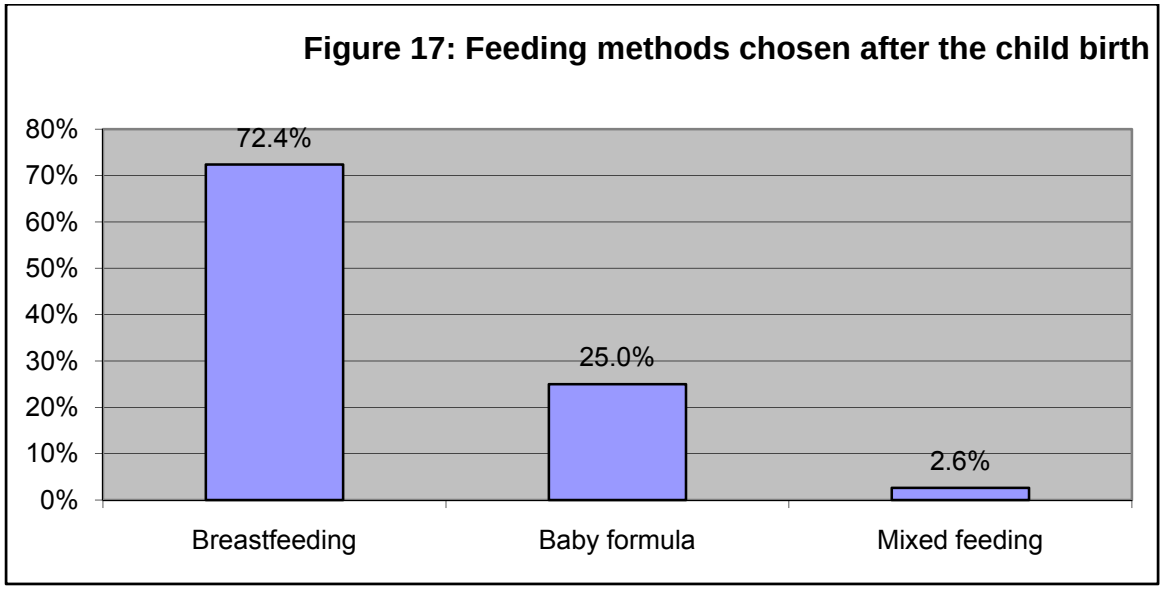
4.14 Advice on how to reduce the risk of HIV transmission during breastfeeding?

Various activities which will help respondents reduce the risk of HIV transmission during breastfeeding are indicated in figure 16.



4.15 Feeding methods chosen after the child birth

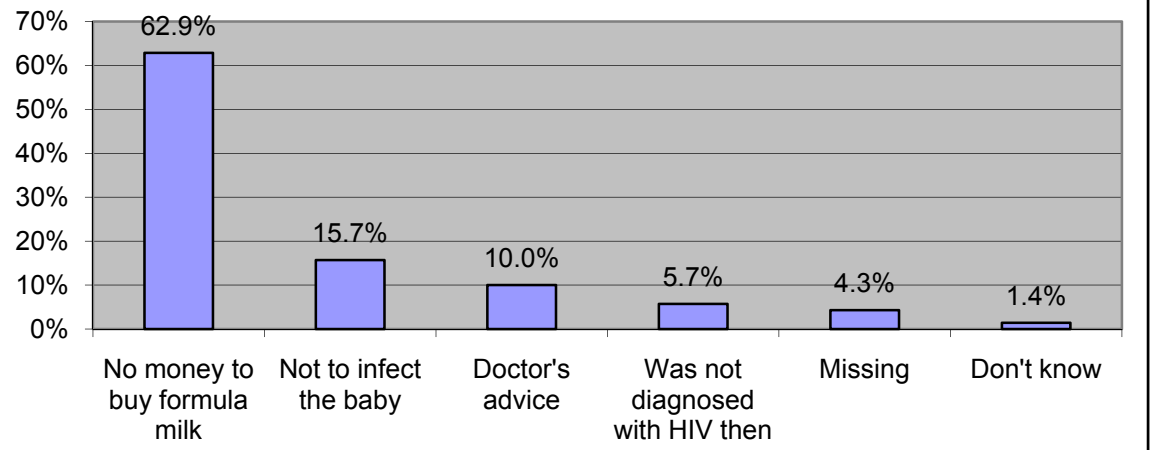
Figure 17 illustrates different feeding methods chosen after child birth.



4.16 Reasons for choosing breastfeeding method

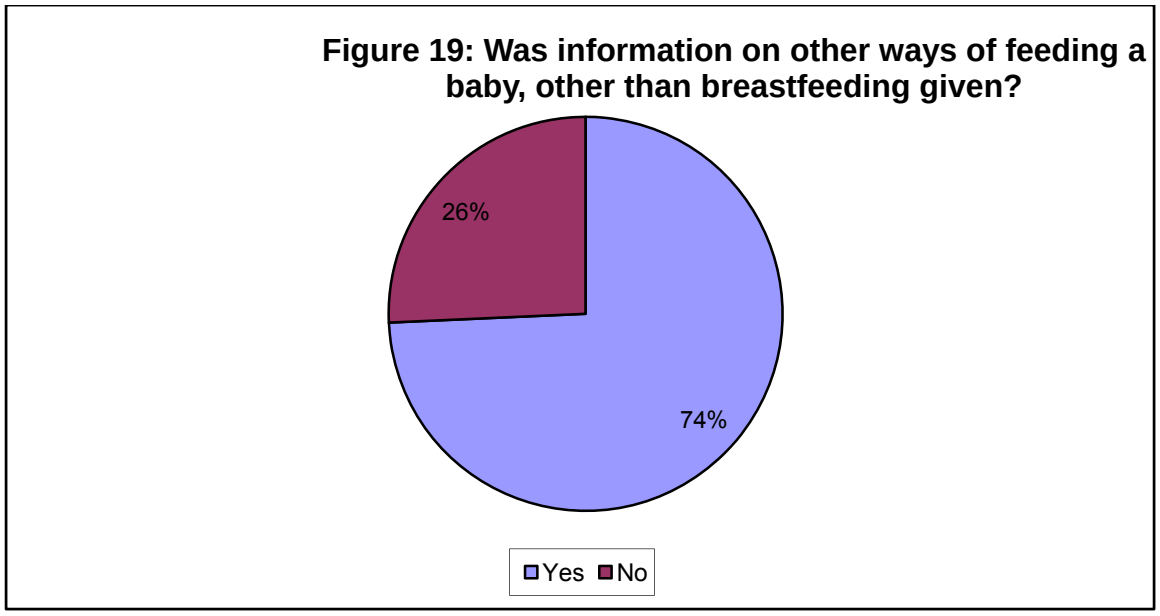
Numerous reasons why respondents chose the breastfeeding method are demonstrated in figure 18.

Figure 18: Reason for choosing breastfeeding method



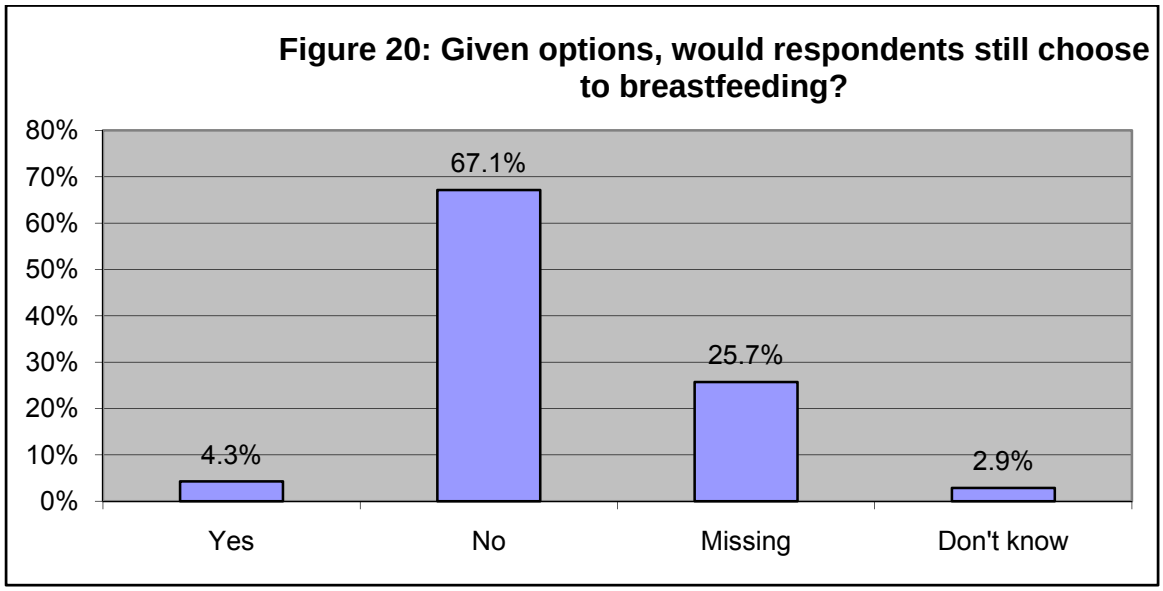
4.17 Was information on other ways of feeding a baby, other than breastfeeding, given?

The majority of respondents said they received information on other means of feeding their babies as shown in figure 19.



4.18 Given options, would respondents still to choose to breastfeed?

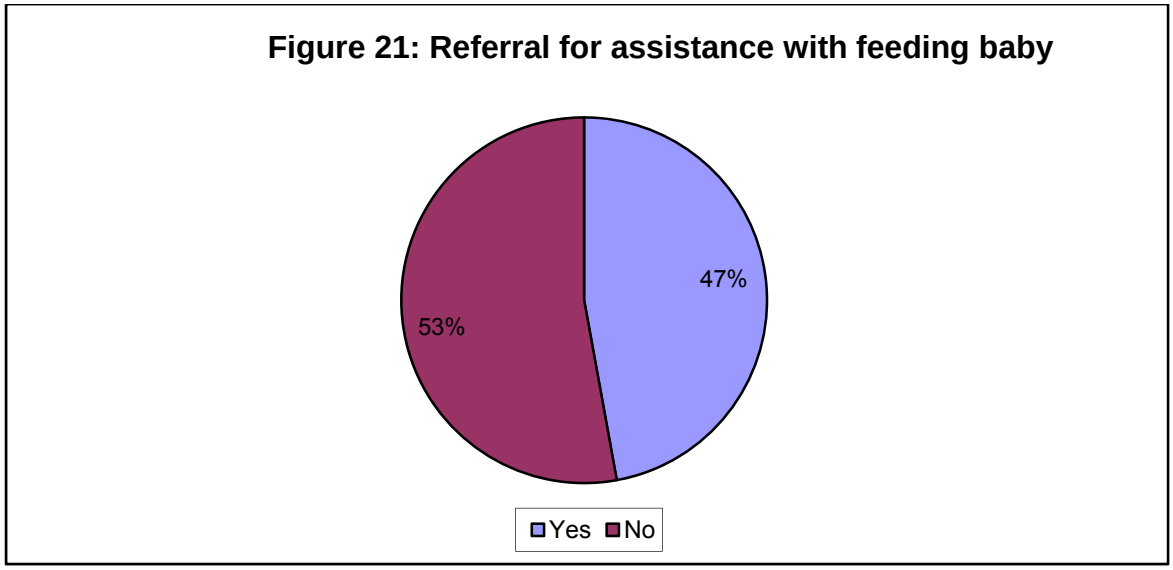
A greater part of the respondents supposed that given other options, they would not have chosen breastfeeding as displayed in figure 20.



4.19 Referral for assistance with feeding baby

The majority of the respondents 53% were not told where to find help in order to feed their babies. About 47% were told where to go for assistance with baby feeding. Refer to figure 21.

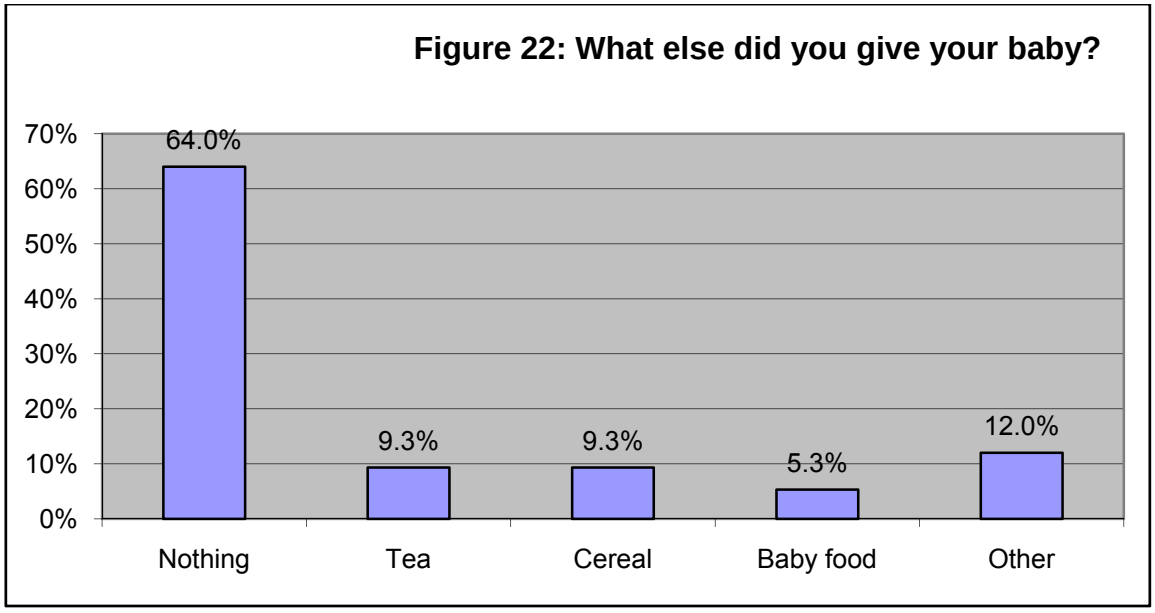
Figure 21: Referral for assistance with feeding baby



4.20 What else did you give your baby?

A large number of respondents 64.0% gave nothing to their babies. Others offered tea, cereal, baby food and others. These are illustrated in figure 22.

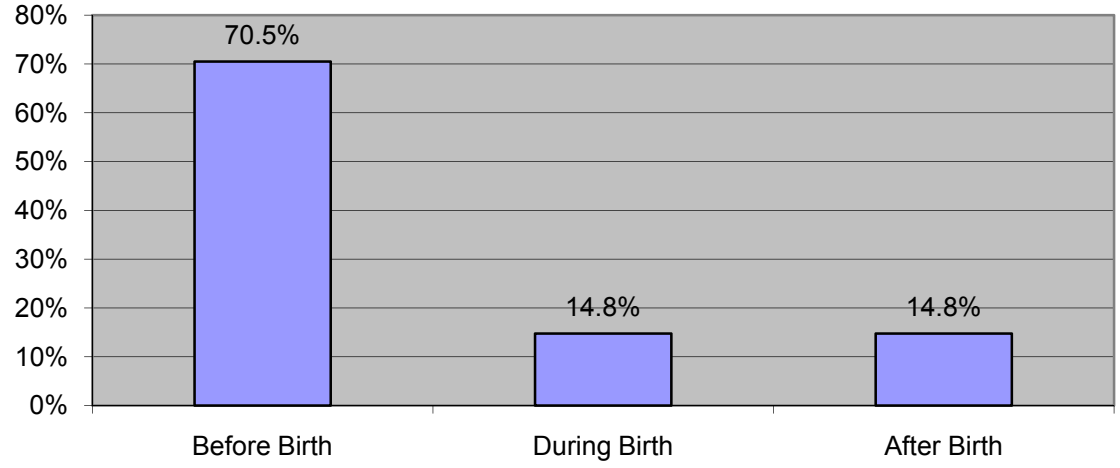
Figure 22: What else did you give your baby?



4.21 When were you given ARVs to protect your baby from HIV?

Figure 23 show that the majority of respondents 70.5% were given ARVs before birth, 14.8% during birth and after birth respectively.

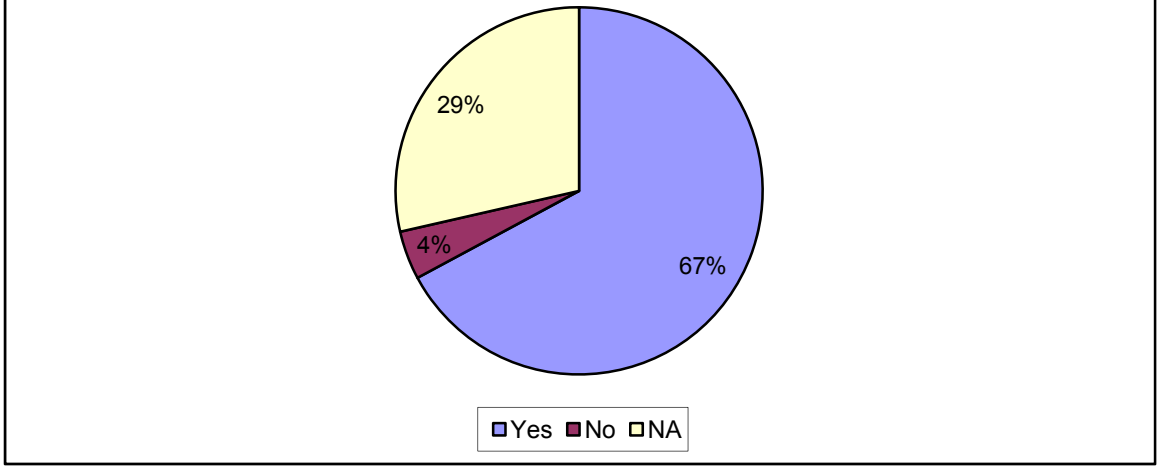
Figure 23: When were you given ARVs to protect your baby from HIV?



4.22 Were respondents given explanations on the why they were given ARVs?

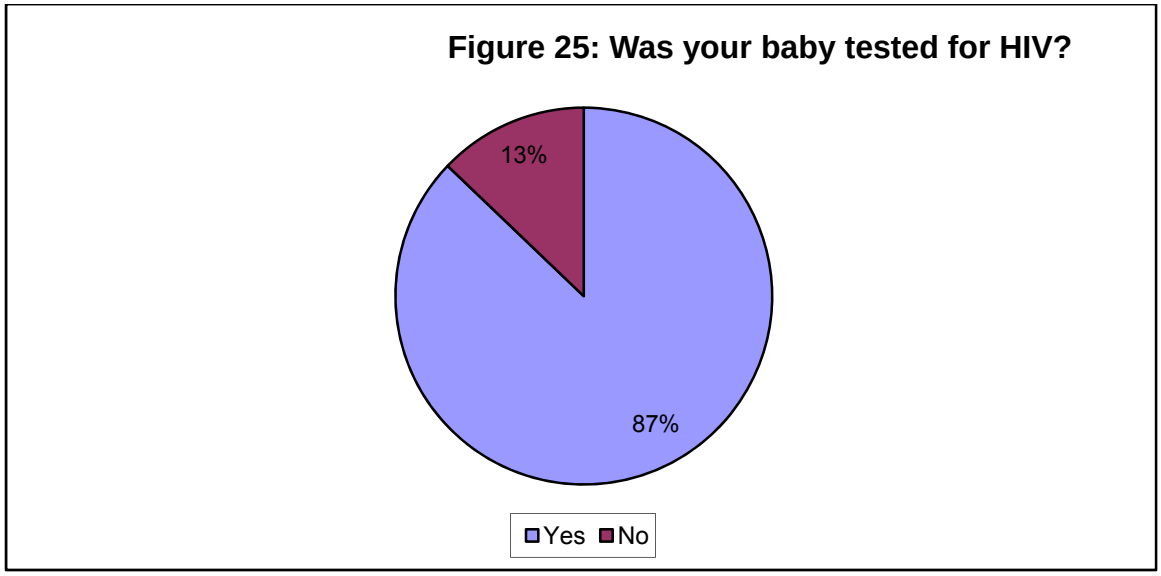
About 67% of the respondents reported having received explanations on the reason why they have to take ARVs. See figure 24.

Figure 24: Explanation why respondents were given ARVs



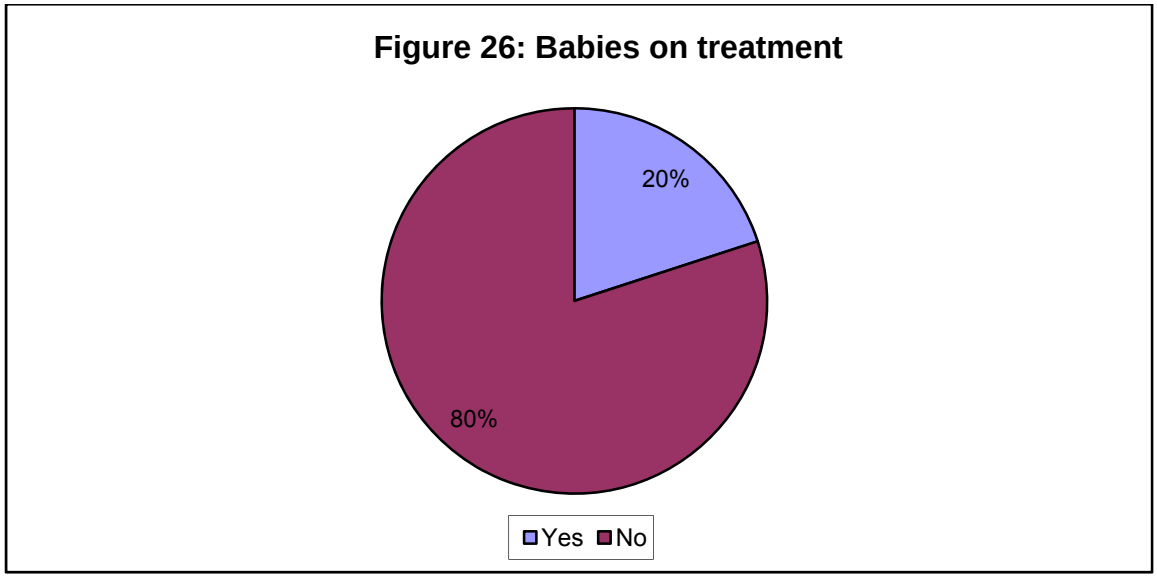
4.23 Was your baby tested for HIV?

Figure 25 demonstrate the percentage of respondents who said that their babies were tested for HIV.



4.24 Babies on treatment

With reference to babies on treatment, 20% of the babies were reported to be on treatment as shown in figure 26.



4.26. Do you think an HIV positive woman should breastfeed her baby?

Table 3 indicates respondents' opinions on whether a positive woman should breastfeed. The majority of them 95.7% said no because of the risk of passing on HIV.

Table 3: Do you think an HIV positive woman should breastfeed her baby?

Should HIV positive women should Breastfeed	Number	Percent
Yes	3	4.3
No	67	95.7
Total	**70**	**100**

4. 27 Can HIV be transmitted from a mother to a child through breastfeeding?

In table 4, around 74.3% of the respondents believed that HIV can be passed to a baby through breastfeeding.

Table 4: Can HIV be transmitted from a mother to a child through breastfeeding?

	Number	Percent
Yes	52	74.3
No	18	25.7
Total	**70**	**100**

4.28 Respondents who received counselling vs breastfeeding

Table 5 shows that even though respondents received counseling on feeding options, they still chose breastfeeding.

Table 5: Respondents who received counselling vs breastfeeding

Breastfeeding	Discussion					
	Number			Percent		
	Yes	No	Total	Yes	No	Total
No	15		15	100		100
Yes	47	8	55	85.5	14.5	100
Total	62	8	70	88.6	11.4	100

4.29 Respondents HIV positive status vs breastfeeding

As seen from table 6, despite knowing their HIV positive status, they nevertheless selected breastfeeding.

Table 6: Respondents HIV positive status vs breastfeeding

Breastfeeding	Given ARVs							
	Number				Percent			
	Yes	No	Missing	Total	Yes	No	Missing	Total
No	14	1		15	93	6.67		100
Yes	36	17	2	55	65	30.91	3.6	100
Total	50	18	2	70	71	25.71	2.9	100

4.30 Knowledge that HIV can be passed to a baby through breastfeeding vs breastfeeding

In spite of the fact that respondents knew HIV can be passed to a baby through breastfeeding, 74.5% still decided on breastfeeding as indicated in table 7.

Table 7: Knowledge that HIV can be passed to a baby through breastfeeding vs breastfeeding

Breastfeeding	Know whether HIV can be transmitted through

	breastfeeding					
	Number			Percent		
	Yes	No	Total	Yes	No	Total
No	11	4	15	73.3	27	100
Yes	41	14	55	74.5	25	100
Total	**52**	**18**	**70**	**74.3**	**26**	**100**

5. DISCUSSION

The analysis and discussion will seek to demonstrate whether the hypothesis is supported or rejected. The critical question, therefore, is whether respondents received counselling at ante natal clinics. Whether or not a pregnant mother is counselled depends on her willingness or ability to attend ANC. So, all pregnant women irrespective of their HIV status are encouraged to attend. This has resulted in over 90% of pregnant women attending ANC in Namibia (MOHSS, 2008). The importance of attending ANC is demonstrated by the following statement:

"the effectiveness of the PMTCT programme depends on ensuring that the highest possible proportion of pregnant women attending antenatal care services are counselled and tested for HIV, and that ARV prophylaxis is provided to all those women found to be HIV positive, as well as to their HIV exposed newborn babies " (p.i (MOHSS, 2008).

According to the MOHSS (2008), women who attend ante natal clinics are tested for HIV and receive counselling as part of the routine comprehensive package of care. In this survey, almost all respondents attended ANC, though at different times:

be it on a weekly, monthly or on appointments. Additionally, there were no barriers that prevented respondents from attending ANC with the exception of a few who lived on a farm, and transport problem. All of them received counselling from nurses, doctors or counsellors. Since they have young infants, they also attended ANC for follow-ups where they also received counselling.

Although the majority of the children were HIV negative, 20% of them were living with HIV. This number is significant in terms of survival. It is well documented that many children infected with HIV die within two years of birth (The World Health Organization, 2006). WHO drew attention to the aggressiveness of the HIV infection in children particularly in the absence of care and antiretroviral therapy. The WHO further pointed out that prevention; testing and treatment services make a big difference. For instance, in high-income countries these interventions have lowered paediatric HIV by 2% and children with HIV now survive past the age of six. In Namibia, mothers with infants living with HIV also visit clinics whereby they receive treatment, counselling and advice.

In addition, the results show that as many as 57% of respondents knew their HIV status before getting pregnant, and yet they got pregnant. This is an indication that counselling has not been as effective in the area of family planning counselling. One of the United Nations comprehensive four-pronged strategies is to prevent infection among women of reproductive age in the general population, promote counselling and family planning among HIV positive women to prevent pregnancy. This does not seem to be happening since many respondents got pregnant irrespective of their HIV status.

In the area of HIV testing, it is clear that people want to know their HIV status either to prevent transmission or to access the necessary services. All respondents knew their HIV positive status through testing. This finding supports the Demographic and Health Survey (DHS, 2006-7) which found that one in three women (29%) to have been tested for HIV. Similarly, the MOHSS (2008) accounts that approximately 89%

of the women attending ANC voluntarily tested for HIV and 59% of them received their results. Besides, Origo and Sherr (undated) argued that a pregnant woman is likely to accept an HIV test as she understands knowing her HIV positive status can lead to the care and support services which are likely to help her have a healthy baby. According to Origo and Sherr, the participation of women living with HIV in the PMTC programme will reduce the risk of having an infected baby as counselling addresses pre and post-test counselling, ongoing supportive counselling and referral to comprehensive support services.

According to the MOHSS, HIV testing is an integral part of ANC package offered routinely to pregnant women with an option to 'opt-out' for those that decline to be tested:

"*The cornerstone of all interventions to reduce mother-to-child-transmission of HIV". In the PMTCT programme, pre-test, post-test and on-going counselling should be offered to all pregnant women, postpartum women, and their partners and families" (p.6).*

5. 1 Reasons for non attendance of respondents' partners

According to the results all partners did not attend ANC. The reasons given were that they were living apart, did not want to come, felt it unnecessary and some were working. Some attended once at the request of the clinic for an HIV test. This finding is supported by other studies. For example, Ndjadila and Shapumba (2003) reported that the health workers in Oshakati informed them that since the onset of the PMTCT programme in June 2002 until April 2003, only thirty (30) men visited the PMTCT clinic. The Minister of Health and Social Services, Dr. Richard Kamwi MP, in his opening remarks at the 1st National HIV and AIDS Male Leaders Conference in 2008, affirmed that men are reluctant to participate in PMTCT programme. He further stated that while 65% of the women who tested positive are receiving care and treatment services, only 35% of HIV positive men are doing so. He also noted that women are making use of platforms to access services such as

ante natal care, attendance of ARV clinics and VCT and thus have an opportunity to be counselled.

In this study, the respondents saw the services as an opportunity to prolong their lives and to protect their babies from HIV transmission. The attitudes of respondents can be interpreted as indicative of their willingness to know their HIV status which in turn facilitates access to the necessary services. On the other hand, the lack of partners' participation is indicative of their denial of the possibility that they might be infected. This, in turn, accounts to self-denial of care and support provided to those who test HIV positive.

As to the reason why respondents thought their partners could not attend ANC, several factors emerged. They indicated that their partners were shy of being seen at ANC clinics. This is partly due to cultural reasons that men are not supposed to accompany women to such institutions, as well as the stigma attached to HIV testing. Additional reasons were that men have to work while others were not living with their partners.

However, while respondents regarded attendance of ANC crucial, all of them saw no need for their partners to attend since they do not get pregnant. This thinking is unhelpful in the sense that it could discourage the partners' participation in PMTCT even more.

Clearly, a lack of participation by men is disappointing. This is because the choice of infant feeding is affected by the partners in terms of culture and economy. It is for this reason that the MOHSS promotes couple counselling and testing as a shared vision between the two partners in a relationship so that they can accept their HIV status, and are empowered to prevent transmission and contraction of HIV. However, in these circumstances, strategies to increase male participation are recommended.

What is more, Origo and Sherr drew attention to challenges faced in involving partners in PMTCT programmes. They asserted that the system of women attending ante natal clinic alone, or first, adds to the problem because it threatens men by knowing that their partners are HIV positive. Thus, they are often afraid to be tested. Many men felt that testing is not important since they could not transmit the virus to the baby like the mother. Origo and Sherr therefore, offered suggestions that would help increase partners' participation:

- Identification of appropriate moment, setting and way to approach the subject of HIV and AIDS and its disclosure;
- Identification of family members or friends who would be able to mediate and provide support during and after the disclosure:
- Invitation letters to partners to come for ANC counselling with their wives or consider couple testing; and
- Provision of support groups for couples.

As mentioned above, the majority of respondents discussed HIV with a nurse, counselor or doctor. This is an important finding in the sense that, having discussed HIV related issues with various health workers can provide opportunities for respondents to receive information from all angles, necessary for PMTCT.

Further issues discussed included transmission of HIV to the baby through breastfeeding, during pregnancy and delivery. In order to reduce the risk of transmission during pregnancy respondents were advised to:

- Avoid carrying heavy things or hurting themselves;
- The importance of prophylaxis. Some were given Nevirapine to take at the onset of labour; and
- Prevention through protected sex by using a condom.

Further advice related to the minimisation of HIV transmission during birth is:

- Not to allow blood contact with the baby during delivery; and
- Provisions of Nevirapine for the mother and the baby.

In order to diminish the possibility of HIV transmission during breastfeeding, respondents were advised to:

- Breastfeed for 3 or 4 months only;
- Maintain hygiene and report breast problems when they occur; and
- Refrain from mix feeding. i.e. giving breast milk and other baby food or water.

The majority of respondents also reported having received information on other ways of feeding their babies other than breastfeeding.

Generally, the finding appears to suggest that respondents received basic information necessary to care for themselves during pregnancy, birth and breastfeeding periods. Further discussions with respondents revealed that many of them were following the advice with an effort to protect their babies from contracting HIV.

The finding of the survey further revealed that an overwhelming majority of respondents 72.4% chose breastfeeding, 25.0% baby formula milk and 2.6% decided on mixed feeding. The reasons provided were lack of money to buy formula milk, on doctor's advice. Some chose breastfeeding because they were not yet HIV+. Research evidence indicates clearly that mothers can transmit HIV to their infants through breastfeeding (Bulteel and Henderson, undated; WHO, 2007). This being the case, a mother's choice of infant feeding has a strong influence on the likelihood of whether her baby will become infected. It is questionable though that so many respondents decided on breastfeeding despite their knowledge from counselling that it is indeed possible to pass HIV to an infant through breastfeeding.

However, the results are not surprising. According to the MOHSS in the PMTCT Annual Report of 2006-2007, breastfeeding is the preferred option by the majority of women. This is not unexpected considering how breastfeeding is promoted at the expense of other options. The National Policy on Infant and Young Child Feeding (2003) clearly favours breastfeeding.

"The policy places particular emphasis on the need to promote, protect and support breastfeeding for the majority of infants whose mothers are HIV negative and for whom breastfeeding is a lifesaver" (p.i).

It is recognized that breastfeeding is an effective method of reducing the risk of common childhood morbidity and mortality. However, it is also known that HIV can be transmitted through breastfeeding from a mother living with HIV to the infant (Israel and Huber 1999; UNICEF, 2002; 2007)**.**

Respondents were also asked to state their motivation for their feeding methods. All of them who were breastfeeding except one indicated that their choices were not influenced by the knowledge of PMTCT or lack of it thereof. They overwhelmingly said economic factors and health workers' advice dictated their choices of feeding methods. The following quotes serve to demonstrate their decisions:

"Because the nurse said I can breastfeed for three months"
"On doctor's advice "
"I have no money to buy formula milk" was the voice of the majority of the respondents.
It can be concluded, therefore, that there exists an awareness that breastfeeding can transmit HIV from mother to child. Thus, despite economic problems, the majority of respondents wanted to protect their infants from HIV as it can be seen from the following quotation:

"I stopped breastfeeding after I heard you can pass HIV to your baby because you have HIV in your milk".
Another respondent recounted that:
"I stopped because my milk has HIV. I wanted to prevent HIV from infecting my child".

Respondents were also asked if they would still breastfeed their babies if they were given other options. About 67.1% said that they would refrain from breastfeeding because the milk would expose their babies to HIV. It can be argued, therefore, that infant feeding methods chosen by the respondents depended on whether they could afford to buy formula milk or not. It is thus possible to conclude that mothers living with HIV may be breastfeeding as they have no other alternative. Another contributing factor to preference may be due to the tendency of health workers to promote breastfeeding among all mothers irrespective of their HIV status. This is because the Infant and Young Child Feeding Policy advocates breastfeeding. To a certain extent, it is understandable that health workers cannot provide advice which is contrary to the policy of the government.

With respect to the question whether respondents exclusively breastfed their children or mix fed, the majority 64.0% exclusively breastfed, 9.3% gave tea and cereal respectively, 5.3% baby food while 12.0% gave other things such as water Some respondents pointed out that they did not see the reason why they should not provide mixed feeding. For example, they emphasized that water is necessary for human survival. Additionally, one woman was not clear whether it was the mother's milk or the food which infected the baby. This underscores the need for training that addresses specific issues to ensure that women living with HIV receive the correct information.

Throughout this report, the voices of respondents have been loud in describing their desire to protect their babies from HIV infection. The government, having already committed itself to eliminate HIV, in favour of a generation free of HIV, has a responsibility to support and care for these women and their babies as well as to ensure that babies who tested negative at six weeks are not infected through their mothers' milk. Government should provide formula milk to those who are in a position to prepare the milk safely. There is no justification for Namibia to the investment in technology needed for early infant diagnosis (PCR) if the results cannot be used for initiatives that would reduce HIV infections.

Furthermore, the government can be accused of discrimination against babies born by mothers living with HIV. Ndjadila and Shapumba (2003) reported that health workers in Oshakati stated that the health centre does not give formula milk to babies born to women living with HIV. However, they do so to orphans whose relatives or guardians cannot afford formula milk. For that reason, it can be argued that giving orphans and vulnerable children (OVC) formula milk and refusing those babies born by mothers living with HIV amounts to discrimination and violation of their rights to equal care and support. If formula milk can benefit orphans, so should children born to mothers living with HIV. In fact, for babies born by mothers living HIV, formula milk can make a difference between life and death. Hence, government needs to review its position on formula milk to this group of the population without necessarily compromising breastfeeding to those who are able to do so. The majority of the respondents also reported that 87% of the babies were tested and that only 20% were on treatment. The number of children already tested is testimony to the efficiency of DNA PCR. Through the use of DNA PCR, many more babies born with HIV can be diagnosed timely and thus prevent MTCT. On the other hand, the question whether these babies remain HIV negative for the rest of their lives arises? The following quotation from the MOHSS (2008) may help answer the question:

"Even though the efficacy of ARVs for PMTCT is reduced by breastfeeding, it is neither acceptable nor safe for the majority of HIV infected women to use replacement feeding"

It can be deduced from the above statement that it is more likely that some babies can contract HIV during breastfeeding even after testing HIV negative. According to the above quotation, mothers are more likely than not to be advised to breastfeed. This assumption is supported by the findings of this survey in which fifty five out of seventy respondents said they were breastfeeding even though they knew their HIV positive status.

In this survey, the opinions of the respondents were solicited on whether mothers living with HIV should breastfeed their infants. The overwhelming majority 96.7% advised against breastfeeding and 4.3% (3) were in favour of breastfeeding. It is recommended therefore, that government supports women living with HIV by providing formula milk. Reducing HIV infection has economic and development implications. It reduces the health costs as the number of people seeking services will decrease. The need to treat AIDS versus other illnesses would be eliminated as well as spending for health rather than spending on other objectives. It is thus crucial to maintain a healthy population essential to development and that a productive workforce is critical to economic development. It is, therefore, in the government's interest to support women living with HIV through providing formula milk since the future development of the country depends on these children.

6. CONCLUSION

One of the key conclusions is that mothers living with HIV received counselling from nurses, doctors or counsellors. They were advised on how to protect their babies from HIV during pregnancy, birth and breastfeeding. The quality of counselling though could not be established. Furthermore, the majority of mothers chose breastfeeding because they had no money to buy formula milk, as well as on advice from the health workers.

7. RECOMMENDANDATIONS

The government should look into the possibility of providing formula milk to all babies testing negative for a period of six months. This should be combined with income generating activities which will lead to self-reliance. The government should expand the role of community health workers in order to support mothers living with HIV in the community.

Government should support NGOs giving formula milk to nursing mothers through financial assistance, capacity building and training on hygiene, childhood illnesses and early childhood care and development. It is laudable that the government has introduced PMTCT programme. However all of efforts need to invested into male focus programmes.

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9. APPENDICES

APPENDIX A
DISCUSSION: KEY INFORMANTS

Introduction

This part of the survey solicits the views of managers and HIV and AIDS Coordinators through interviews. The main purpose of the exercise is to determine if these institutions have tailor made programmes for mothers living with HIV. The second intention was to establish if the Khomas Regional Council has a paediatric strategy in place and if their programmers are in compliance with the strategy. The institutions which participated in the survey included the City of Windhoek, the Office of the Prime Minister, the Ministry of Education and the United Nations agencies in Namibia. Other organizations included:

Positive Vibes: Positive Vibes is a cutting-edge communication initiative that has emerged from the HIV and AIDS programme of the Danish international development organization (IBIS) in Southern Africa.

NANGOF: Namibia NGO Forum Trust is the umbrella organization that represents Namibian NGOs.

NANASO: Namibia Network of AIDS Service Organisations acting as a conduit between the network members and other stakeholders.

Mount Sinai: Mount Sinai is a local organisation providing formula milk to mothers living with HIV in Windhoek.

Namibian Women Health Network (NWHN): A network for women living with HIV and AIDS.

Methodology

Due to time constraints, only 9 institutions participated in the survey. Using a questionnaire containing 6 questions, institutions were interviewed individually. However, the interview results will be jointly discussed.

Results/Discussion

Do you know how many women in your institution are living with HIV and AIDS?

Eight institutions did not know the number of women living with HIV and AIDS in their institutions. One institution has 3 women openly living with HIV and AIDS. Institutions cited confidentiality being one of the bases for not knowing the number of those living with HIV and AIDS. The second reason was that employees were reluctant to disclose their status in fear of stigma and discrimination. Van DyK (2005) argued that people living with HIV and AIDS have the right to confidentiality and privacy on their health and HIV status and thus only they can decide whether or not their HIV status can be disclosed. The Namibia National HIV and AIDS Policy affirms the same principle. This principle is based on respect for individual rights as well as the assumption that disclosure can have negative outcomes such as rejection, stigma and discrimination. However, it can also be argued that lack of HIV disclosure is an impediment to accessing the necessary services. The general implication for the mothers living with HIV with babies is that they would not be able to receive care and support since their employers are not aware of their HIV status.

Do you have an HIV and AIDS policy in your organization?

What is encouraging is that half of the institutions reported having HIV and AIDS policies. Of special interest is the City of Windhoek which has two policies: one targeted at the community in general and another for its employees. The pitfall however, relates to the fact that many institutions have weak HIV and AIDS workplace programmes consisting of male condoms and once off activity. For example, the City of Windhoek has a one day activity where employees are encouraged to go for testing. This is done on the World AIDS Day, and carried out in collaboration with New Start Centres. The Ministry of Education has a program called ‘Educator Health’. This again is a one day activity whereby employees are encouraged to go for testing, and given Information Education and Communication (IEC) materials.

None of the institutions has specific activities targeted at women, let alone those living with HIV. Moreover, for those employees tested on World AIDS Day, the test

results are given to the individual employees while the institutions only get an indication of the number of employees who tested positive and their exact identity is kept secret. One institution had no problem with the existing situation "*we don't want to know their results because we have no services to offer them".* Generally, this state of affairs leaves one to wonder if work place programmes are a priority or not. It can be argued therefore, that Namibia still has a long way to go in the fight of HIV and AIDS. This is because one of the important factors in managing HIV and AIDS is to create an environment where all employees feel safe and secure to interact and debate HIV and AIDS issues openly. Once employees feel safe, the opportunity for disclosure is created and encouraged, which in turn allows them to access the services needed to manage HIV, as well as prolong their lives.

Do you know if the Khomas Region has an HIV and AIDS paediatric strategy?

All institutions were not aware of a Khomas Region HIV and AIDS paediatric strategy and thus were not clear how planning takes place. Further investigation with the Khomas Region confirmed that the region does not have a paediatric strategy or a specific HIV and AIDS Policy for their employees. Rather, they use the National HIV and AIDS Policy. This could mean that planning is done on an *ad hoc* basis since there is no tool for guidance. This has serious implications to reducing MTCT as well as to providing care and support to mothers living with HIV and their babies. Similarly the uniqueness of the Khomas Region means that it needs a specific strategy and action from other regions.

If no, how do you think the Khomas Region is planning future approaches to reduce MTCT?

In order to improve planning and to implement PMTCT programmes in the region, the institutions put forward the following suggestions:

- The Khomas Region needs to identify the problem through research.

- The Khomas Region should examine the national strategies to see how they fit in and how to meet the set indicators.

- There exists a need to support RACOC Coordinator and to strengthen collaboration with other stakeholders. The support necessary includes supervision, follow up and training. There is a feeling among the institutions that even though meetings take place, they do not result in proper and better outcomes.

- The Khomas Region should start with awareness programmes. These should be coordinated by a regional committee which will use the media, national and international organizations and institutions in the sensitization and mobilization of the public on PMTCT strategies. This should include information on where to access these services (e.g. counselling, testing and treatment).

- The government needs to provide formula milk to babies born to mothers living with HIV who test negative. There is no need for a test if negative results are not supported by interventions which ensure that the babies remain HIV negative.

- The government should have a short-term assistance programme providing formula milk to babies born to mothers living with HIV for at least 6 months until the babies are able to eat solid food. The government should also have long term interventions which include the provision of informal education (adult literacy) and projects where women can carry out income generating activities in order to support their babies after the 6 months government support.

APPENDIX B

QUESTIONNAIRE FOR HIV POSITIVE MOTHERS

In Namibia, many children are being infected by HIV, the virus which causes AIDS leading to many deaths. However, there is no effective ways to reduce infant HIV and AIDS related deaths. We need to find ways to protect children from being infected in order to reduce the number of deaths. One such way is by looking at the infant feeding practices of mothers who are HIV positive. The purpose of this research study is:

1. To investigate the reasons why the majority of mothers who are HIV positive in Khomas (Windhoek) breastfeed their new born infants.
2. To investigate the quality and effectiveness of counselling provided to pregnant mothers in relation to infant feeding for HIV positive mothers.

This research study targets mothers who are currently breastfeeding/using alternative feeding or have children age below 2-3 years. You have been chosen to participate in this research study because you are a mother with of a small baby or young child. Your contribution to this is therefore very valuable.

I would be grateful if you could answer all the questions about breastfeeding and alternative feeding practices. Any information you give will be treated with the strictest confidence; your name is not required. Indicate your answer by a tick between the appropriate pair of brackets like this (√) or filling in your answers in the lines_____.

The data obtained from the research will be used for a dissertation to be submitted in partial fulfilment of the degree of MPhil in HIV and AIDS Management, University of Stellenbosch University South Africa.

Participants in the research will receive feedback on the survey results through a presentation and copies of the dissertation.

Thank you for agreeing to participate in this research.

SECTION A: Personal General Information

1. Please indicate your age below (please tick one):

Below 14 yrs ( )

15-20 yrs ( )

21-25 yrs ( )

26-30 yrs ( )

31-35 yrs ( )

36-40 yrs ( )

41-45

2. When were you diagnosed as HIV positive? (Please tick one)

6 months ago ( )

1 yr ago ( )

2 yrs ago ( )

3 yrs ago ( )

4 yrs ago ( )

5 yrs ( )

Over 5 yrs ( )

3. How many children do you have? (Please tick one or more)

1 ( )

2 ( )

3 ( )

4 ( )

5 ( )

6 ( )

4. How old are the children? (Please tick one or more)

Child Age				
3 months	**6 months**	**1 year**	**2 years**	**3 years**
1				
2				

3				
4				
5				
6				

5. How old is your youngest child?

_____

6. How many of your children are infected with HIV and AIDS?_____

SECTION B: Acquired Knowledge of MTCT during Pregnancy

7. Did you know that you were HIV positive before you got pregnant?

Yes **No**

8. If yes, how did you find out that you were positive?

_____

9. When you were pregnant, did you attend antenatal classes?

Yes **No**

10. If yes, how many times per month did you attend?

_____

11. Were there any barriers that prevented you from attending?

Yes **No**

12. If yes, please state the barriers:

_____

13. Did the baby's father attend the clinic with you?

Yes **No**

14. If no, please state the reason:

_____

15. During the antenatal classes did you discuss HIV, the virus that causes AIDS, and which can be passed from a mother to her child?

Yes **No**

16. If no, please 'skip' questions 16-25

17. If yes, which of the following people discussed it with you? Please tick all that apply.

Nurse ( )

HIV and AIDS Counsellor ( )

Doctor ( )

Others (Please specify) ( )

18. When did the nurse, counsellor, doctor or other professional say HIV can be passed on to a baby? (Please tick all that apply)

During pregnancy ( )

During delivery ( )

During breastfeeding ( )

19. What did he/ she say a mother can do to reduce the risk of transmission of HIV to her baby during pregnancy? **(**Please explain below)

_____

20. What did the nurse, doctor, counsellor or other professional say a mother can do to reduce the risk of transmission of HIV to her baby during delivery? (Please explain below)

_____

21. What did the nurse, doctor, counsellor or other professional say a mother can do to reduce the risk of transmission of HIV to her baby during the breastfeeding period? (Please explain below)

_____

22. After the birth of your child, which way (s) of feeding your baby did you choose? (Please tick all that apply)

Breastfeeding ( )

Baby formula ( )

Mixed feeding (mother's milk and other food) ( )

23. Give reasons for your choice.

_____

24. Were you given any information on other ways of feeding your baby other than breastfeeding?

Yes **No**

25. If yes, specify what other ways were you informed about?

_____

26. If you were offered other ways of feeding your baby would you still have chosen to breastfeed your baby?

Yes **No**

27. If yes, please state the reasons_____

28. Were you told where to go for help if you needed assistance in feeding your baby?

Yes **No**

29. If yes, please list below some of the places you were told you can go for help.

_____

30. If you are bottle feeding, do you use:

Concentrated Formula ( ) Powdered Formula ( )

Ready to Feed Formula ( ) Fresh Milk ( )

31. What else do you give your baby?

Nothing ( ) Tea ( )

Cereal ( ) Baby Food ( )

Others: (Please specify)

_____

32. Did you give birth in a hospital?

Yes **No**

33. If yes, were you given ARV?

Yes **No**

34. If yes, when were you given the ARV? (Please tick all that apply)

Before birth ( )

During birth ( )

After birth ( )

35. Did anybody explain to you why you were given this medicine?

Yes **No**

36. If yes, state what they said.

_____

37. Was the baby given medicine at birth?

Yes **No**

38. Was the baby tested for HIV?

Yes **No**

39. Is yes, how old was the baby when she/he was tested?

_____

40. Are you (mother) receiving medicine now?

Yes **No**

41. Is the baby receiving the medicine now?

Yes **No**

SECTION C: General Knowledge of HIV

42. What do you understand by HIV?

_____

43. What do you understand by AIDS? _____

44. Do you know how a person can become HIV positive?

Yes **No**

45. Where did you learn this from?

_____

46. In your opinion, do you think an HIV positive woman should breastfeed her baby?

Yes **No**

47. If yes, please give reasons for your answer._____

48. If not, please give reasons for your answer.

_____

49. Do you know whether HIV could be transmitted from mother to a child through breast-feeding?

Yes **No**

50. Are there any risks involved in providing replacement (food other than breast milk) food to a baby**?**

Yes **No**

APPENDIX C

QUESTIONNAIRE FOR KEY INFORMANTS

In Namibia, many children are being infected by HIV, the virus which causes AIDS leading to many deaths. The majority of the infection in children is acquired through mother to child transmission (MTCT). We need to find ways to minimize MTCT in order to reduce morbidity and mortality. One such way is by looking at the infant feeding practices of mothers who are HIV positive and the counselling services they receive during antenatal visits and the impact these have on the mothers' choice of feeding practices. The purpose of this research study is:

3. To investigate the reasons why the majority of mothers who are HIV positive in Khomas (Windhoek) breastfeed their new born infants.
4. To investigate the quality and effectiveness of counselling provided to pregnant mothers in relation to infant feeding for HIV positive mothers during the ante natal visits.

The first part of the research study targets mothers who are currently breastfeeding/using alternative feeding practices or have children age below 0-3 years.

You have been chosen to participate in this research study to provide insight about the types of HIV and AIDS programmes your institution offers to employees (women living with HIV mother with small babies or young children). Your participation is highly appreciated and information that you provide will be held in confidence.

I would be grateful if you could answer all the questions. Please indicate your answer by a tick between the appropriate pair of brackets like this (√) or filling in the lines provided_____.

1. Name of institution_____
2. Do you know how many women in your institution are living with HIV or AIDS?

   Yes **No**
3. If yes, how many women living with HIV have small babies in your institution**?**

   _____
4. Do you know what options of feeding are they using?

   Breastfeeding ( )

   Formula ( )

   Others (Please specify)

   _____

5. Do you have an HIV and AIDS policy in your organization?

   Yes **No**
6. If yes, please list services you provide to HIV positive mothers with babies or young children?

   _____

   If no, state the reason why your institution does not have an HIV and AIDS policy.

   _____

7. Do you know if the Thomas Region has an HIV and AIDS paediatric strategy?

   Yes **No**
8. If yes, please state where you find this information from?

   _____
9. If no, how do you think the Thomas region is planning future approaches to reduce MTCT?

   _____
10. Any other comments:

_____